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R. B. ANDERSON, JR., A. B., M. D.
(Deceased January 2, 1947)
AND
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FORT WORTH, TEXAS

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Vol. XLII **May, 1946** **No. 1**

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

Our Position in the Wagner-Murray-Dingell Bills Legislation in the Congress is set forth in a fairly, though not completely comprehensive statement filed with the Committee on Education and Labor of the United States Senate, as a part of the hearing being conducted by that Committee on the Wagner-Murray-Dingell Bill (S. B. 1606). The statement was filed over the signature of the President and Secretary of the State Medical Association of Texas, which makes it official, as nearly as anything of the sort can be official. The Committee on Public Relations participated in the preparation of the statement.

The statement in full, was given publicity through newspaper releases, and other channels available to our Committee on Public Relations, and we have received many very fine compliments with reference to both the position taken and the manner of presentation. Particularly has this statement been compared with evidence adduced by the Committee on Education and Labor during this hearing, by advocates of the legislation in question, many of whom have indulged in utterly uncalled for misrepresentation, abuse, and ridicule. We feel that we should compliment our Committee on Public Relations and all who participated in the preparation of the statement, in connection with the dignified and very informative expression of views of our Association on this very important problem. It is our hope that we continue along such lines.

The advocates of this and similar legislation, for the most part, are of the crusader type, and, therefore, quite intolerant of opposition. They are somewhat in the position of the blind man who felt of the elephant's trunk, and gave it as his opinion that the elephant was an animal shaped very much like a large snake. Or, perhaps we should make the comparison with the observation of another blind man, who felt the elephant's tail, and concluded that the elephant was more or less like a rope. At any rate, the advocates of the legislation setting up socialized medicine in this country are apparently convinced the legislation is practically an accomplished fact, and are visibly and audibly peeved at any opposition. We are advised that at a conference recently held in Washington, D. C., the conferees were told that the accomplishment of the program was assured, and all that needed to be decided was how it would fit into the health service in each of the states. While we are not inclined to discuss the matter of socialized medicine in this editorial, we are insisting that the accomplishment of the fact of socialized medicine is certainly not in the near or even foreseeable future. Certainly it is not if a majority of the doctors in this country don't want it and won't have it. It is our opinion that the doctors don't want it and won't have it, and that the people, certainly those who are patients of competent, conscientious doctors, would not like it.

So important do we consider the statement referred to above, that we are reprinting it here, in full. It is addressed to the Honorable

James E. Murray, Chairman of the Committee on Education and Labor of the United States Senate, and is signed by President Dr. H. F. Connally and Secretary Dr. Holman Taylor. The statement follows:

"The State Medical Association of Texas, with a membership of 6,000 practicing physicians, appreciates your courtesy in permitting us to go on record as being opposed to the enactment of Senate Bill 1606—the Wagner-Murray-Dingell bills.

"Our investigations show us that not only the physicians of Texas but the citizens of Texas by an overwhelming majority are definitely opposed to the Wagner-Murray-Dingell bill, inasmuch as it constitutes compulsory prepaid health insurance under Federal control.

"As evidence of this definite state-wide opposition on the part of the people of Texas, we point to the fact that a large section of the Texas press, including both large daily newspapers and small country weeklies, have placed themselves editorially on record in opposition to this proposed legislation. We also would respectfully call your attention to the fact that the representatives of the State of Texas in the Congress have, by a large majority, gone publicly on record as being opposed to this Federal legislation. Texas is a pioneer state, a vigorous, fast growing commonwealth. The average Texan thinks and speaks for himself, and above all things jealously guards his freedom of choice in matters which affect his personal liberty and pursuit of happiness. Texans gained their liberty by fighting for it and it is not thinkable that a citizenry which holds such a pride in their State as do Texans, will willingly agree to the regimentation of themselves and their affairs, during peace time, by any Federal agency. We venture to say, judging from the expressed attitudes of the press of Texas and its duly elected representatives in Congress, that should the matter of compulsory Federal health insurance be put to a vote of the people of Texas it would be defeated at the polls by an overwhelming vote. The people of Texas do not want Federal medicine. They wish to retain their full liberty to select and patronize the physicians of their choice without being handicapped in even the smallest way by any Federal law or directive.

"As to Senate Bill 1606 and its many complicated details, we wish you to know that a majority of the State Medical Association of Texas, all its officials and all its committees, have read this bill and studied it in detail. In fact, special group meetings of doctors have been called for the purpose of reading the bill in full and discussing its multitudinous and complicated provisions. In their considerations of the Wagner-Murray-Dingell bill the members of the State Medical Association of Texas have attempted to consider the measure impartially and quite unselfishly. Their attempt has been to reach a very simple conclusion — would the Wagner - Murray-Dingell bill be helpful to the health, welfare and happiness of the seven million people who live in the State of Texas? Our considered conclusion is that this bill would not better public health in Texas. On the contrary, it would tend to destroy the present system of Americanized medicine in our State by substituting Federal control, and the health, welfare and happiness of Texans generally would soon be seriously and adversely affected.

"In regard to Title I of S-1606, the State Medical Association of Texas certainly stands in full approval of Federal grants in aid to the States for establishing and maintaining adequate measures for the prevention, treatment and control of venereal disease and tuberculosis, the extension of the public health service, and the extending of maternal and child health care to all mothers and children, where personal payment for such service would constitute a hardship. Similarly, the State Medical Association most certainly favors Federal grants in aid for the purpose of providing full medical care and hospitalization for the indigent. One section of the bill which would seem objectionable is the provision for training thousands of employees in public health work in some central Federal educational set-up in Washington. We believe that such training should be decentralized, and that training of public health employees could more efficiently be carried out in the hospitals, universities and other centers of medical education distributed throughout the United States. In such a manner the trainees could more readily become acquainted first-hand with widely varying health problems than they could if they were forced to secure such training in the highly political atmosphere of Washington, D. C.

"As to the provisions for Federal aid in the prevention and control of venereal diseases and tuberculosis, it is our opinion that laws already on the Federal statute books make ample and sufficient provisions for these activities.

"As to the construction of hospitals in locations where they are needed, we believe that this important matter is fully covered by the Hill-Burton (S. 191) bill which has already passed the U. S. Senate and is now under consideration by the House of Representatives. This bill, which depends upon various States to make surveys as to where hospitals are most needed and where they would be self-supporting by the contiguous population, appears to us to be the full and complete answer to the hospital construction problem. The Hill-Burton bill has been endorsed as to principle by the Legislative Committee of the State Medical Association, and has the full endorsement of the American Medical Association.

"In regard to scientific and medical research, it seems to us that this is adequately taken care of in the amended Magnuson bill, S-1850, which measure meets with the hearty approval of the American Medical Association and which undoubtedly will be endorsed by the State Medical Association at the earliest opportunity.

"The State Medical Association of Texas is opposed in every particular to Title II of the Wagner-Murray-Dingell bill, which provides for prepaid personal health service benefits, and we believe that the people of Texas are similarly opposed. No matter what any person, however exalted his position, might say in this regard, we are fully convinced that compulsory prepaid health insurance is definitely socialistic. When the Government goes into business, establishes a system of insurance to which everyone must contribute; when it regulates the provision of medical service through Washington; when it regulates fees that doctors are to receive when they participate in the system; when it regulates consultations and determines when consultants are to be consulted, we respectfully submit that this is very definite socialized medicine. We believe that such a system, which interposes great groups of non-medical Federal employees between the public and their doctors would constitute a medical system both undemocratic and un-American.

"We believe that no universal plan of compulsory prepayment health insurance could ever be successful, or be operated efficiently unless the medical profession is thoroughly in accord with such plan and wholeheartedly coöperates in its administration. On the face of it, so far as Texas is concerned, hardly a doctor gives compulsory health insurance his approval.

"The State Medical Association of Texas and the many county medical societies representing the 254 counties of this State, are all on record as opposing

this compulsory medical insurance plan. Their reasons are many and cogent. They feel that so far as Texas is concerned, with its wide-open spaces and vast areas which are thinly populated, such a complicated insurance system could be operated only under extreme difficulties. It is repugnant to the doctors of Texas that this proposed law, if forced upon them, would compel them to devote many hours of their valuable time, which might be used in caring for the sick, to the making of voluminous reports, in triplicate, to Federal bureaus in Austin and/or Washington.

"The State Medical Association further feels that the Wagner-Murray-Dingell bill, which puts into the hands of one man, the Surgeon General of the United States Public Health Service, a tremendous power which could be wielded through one vast central agency in Washington, presents political implications both clear and dangerous. While it is true that an advisory council of 16 members is provided for, yet it should be noted that such council would be appointed by the Surgeon General himself, with the approval of the Federal Security Administration. Such a council, widely scattered throughout the United States, would likely consist of members fully in accord with the political policy of the Surgeon General, and like so many other councils of an advisory nature would, in effect, be innocuous and more or less a figurehead. The State Medical Association believes that there would be definite danger of absolute dictatorship under any law which would give the Surgeon General practically the sole authority to employ doctors and specialists, establish fee schedules for physicians, fix the qualifications of specialists, determine how many patients any doctor might have, designate and regulate hospitals and clinics to provide service and negotiate contracts with public agencies, non-profit groups and individuals for providing full medical benefits.

"It is our firm belief that such stringent Federal regulations affecting medicine would definitely destroy the private practice of medicine in the United States. Americanized medicine, under Federal control, would forever lose the time honored relationship between physician and patient and patient and physician, which is the base of its entire structure. The initiative of every doctor restricted and regulated by Federal law would be seriously handicapped and medical research and scientific progress on the part of individual doctors would soon become a thing of the past. The quality of medical care would deteriorate and the independence and self-respect of every practicing physician would correspondingly suffer.

"The original Wagner-Murray-Dingell bill, S-1050, which was referred to the finance committee of the Senate, did give some indication of the tremendous financial burden which it would impose upon the American public. The new Wagner-Murray-Dingell bill, S-1606, is being considered without a single definite figure to indicate its cost or its terrific tax burden. The people of Texas, as well as the physicians of this State, realize quite well that the matter of dodging the financial requisites was not without a political bearing. However, since in this world nobody ever gets something for nothing, the American public eventually will have to foot this bill, and we believe that every worker and every employer will be surprised and shocked at what they will have to pay for compulsory health insurance if instituted by the Congress. Such payments, if estimated on the financial figures of the first Wagner-Murray-Dingell bill, would mean the collection by the Federal government of between three and four billion dollars annually from the people of America for this single purpose. It would seem only fair to the people of the United States that a more definite figure of the cost of the Wagner-Murray-Dingell bill should be made public. Under the present circumstances the people are being asked to accept an additional tremendous financial burden, whether it is called contributions or taxes, the import of which the average citizen is at present unsuspecting and unaware. With Federal, State and local taxation practically at an all time high this additional demand would make the present grievous tax burden almost impossible to bear. We believe that if the American public was thoroughly cognizant of what this proposed legislation would cost them, both workers and employers would demand the Wagner-Murray-Dingell bill die in your committee.

"The State Medical Association of Texas strongly advocates wide-spread prepaid health insurance to cover every family and every individual in the State, but it wishes such insurance to be voluntary and not compulsory upon the individual. Furthermore, the doctors of Texas favor the expansion of such insurance as offered by private enterprise rather than through Federal direction and control. Voluntary prepaid health insurance can be provided, and is provided, at a far less cost than contemplated in this proposed Federal legislation. The State Medical Association of Texas is actively upholding and sponsoring worthy programs for prepaid hospitalization and medical and surgical care. The State Association has gone on record as approving both non-profit and commercial prepaid health insurance plans, provided only that such plans are financially sound, give free choice of doctors and do not destroy the relationship between physician and patient. In particular, the State Medical Association of Texas has approved the Blue Cross Group Medical and Surgical Service in Texas, a non-profit organization. Similarly, it will approve other non-profit plans, and by approval it means that the doctors of Texas are actively supporting such plans.

"Estimating from the provisions of the former Wagner-Murray-Dingell bill, S-1050, that every worker would have to pay 3 per cent of his earnings for compulsory health insurance, we wish to compare such payments with the cost of voluntary hospitalization and essential medical and surgical care as provided by the Blue Cross plan in Texas. Taking the average worker, earning the annual wage of $2,600.00, 3 per cent of such wage paid for compulsory health insurance would amount to $78.00 annually. This would cover the worker alone. The Blue Cross plan, when both hospitalization and essential medical and surgical care are included, would cost this worker and his whole family, no matter how many children, $4.10 a month or $49.20 a year. This would be a saving of $28.80 in actual cash expended by the individual worker. Full hospital and essential medical and surgical care is offered to the unmarried person for $1.65 a month by the Blue Cross in Texas, with a corresponding saving, when compared with the exhorbitant rate likely for compulsory Federal coverage. Under the provisions for the first Wagner-Murray-Dingell bill, S-1050, which is our only possible yardstick for estimating Federal health insurance cost, an unmarried worker earning $3,600.00 a year—the top bracket under the proposed law—would have to pay $108.00 annually to the Government for this compulsory protection. A combination hospital, medical and surgical policy with the Blue Cross in Texas could be bought by this unmarried worker for $19.80 a year, a saving of $88.20 a year. The essential health insurance coverage under the Blue Cross Plan would have the approval of the State Medical Association of Texas, and is as broad and as efficient as any plan which could be offered by the Federal Government.

"The State Medical Association of Texas will continue to use every effort in support of voluntary prepaid health insurance provided through private en-

terprise, believing that the voluntary system is the best system, the least expensive system and the most truly American system.

"There is no need for Federal medicine or its socialistic set-up, with low cost voluntary health insurance so widely available to the American public.

"In conclusion, we urge that your committee report unfavorably upon the Wagner-Murray-Dingell bill, S-1606, in all particulars."

The American Medical Association Will Meet in San Francisco, Calif., July 1-5, 1946. The medical profession of Texas, particularly those physicians who are members of the State Medical Association and therefore of the American Medical Association, are thus officially notified of that fact. This will be the Ninety-fifth Annual Session of the Association. The House of Delegates will convene July 1, and will remain in session until it has finished its business.

The State Medical Association of Texas is entitled to five Delegates, at least for this meeting of the House of Delegates. There will be a new apportionment this year, based on membership of the several constituent state associations. Texas may gain a Delegate in the apportionment thus to be made. It lacked a very slight number of members of having enough for six Delegates in the last apportionment.

The Scientific Assembly of the Association will open on the evening of July 2, and the Scientific Sections will take over the next morning, and continue through the balance of the session.

The House of Delegates will convene at the Hotel St. Francis, Union Square. The Scientific Sections will be variously located. Information pertaining to the convention will be published from time to time in *The Journal of the American Medical Association.*

A Real Cancer Research Program Under Way.—Apparently cancer research during the past has been very largely an individual or, at most, but loosely connected matter. That so much progress has been made in the field of cancer speaks well for those who have done the work, whether individually or collectively. During the recent past, those who have been giving the matter study with the idea of doing something about it have come to the conclusion that several things must be done, the sooner the quicker, and the more thoroughly the better.

There are many activities in the field which could well and doubtless will coöperate closely. It will be remembered, in this connection, that there is a difference between coöperation and taking orders. It would appear that the program can be brought into common and coöperative lines without conflicts of interest between groups. Even the element of treatment, which seems to bring about much controversy in the campaign, can be so handled that the good to be derived therefrom, whether or not in the course of research, can be equably distributed throughout the state.

Those interested in the cancer problem in Texas appear to be accepting the American Cancer Society views as to what should be done about it all, thus setting the stage for productive coöperation. A dictum of the American Cancer Society is "Research, Education and Service." There certainly must be a thorough spread of information about cancer, both to the medical profession and the laity, each in accordance with his requirements, and there certainly must be diagnostic and treatment centers set up throughout the state, in order that research material may be made available. The Cancer Committee of the State Medical Association has recommended that this be done in accordance with the Councilor Districts of the State Medical Association.

All of this, and much more which cannot be discussed here, requires money, and in large amounts. Nationally, not so much effort has heretofore been made to raise money. In 1945, there was a determined effort to this end, and approximately $4,000,000 was raised throughout the nation, of which amount $1,000,000 has been made available for research on a national scale. It is expected that $12,000,000 will be raised this year. Of the amount raised through the national campaign, 60 per cent will be retained by the states in which the money is raised. The American Cancer Society has entered into an arrangement with the National Research Council of the National Academy of Sciences under which this collection of high-power men of science will direct the research activities through a special committee established for the purpose and known as the "Committee on Growth." This committee will coördinate and supervise all the research activities of the Society through the channels of chemistry, physics, biology, and clinical research. Considerable money is being made available for fellowships.

We mention these matters not so much as information as assurance that something definite, consistent, and continuous is going to be done about the very serious and disastrous disease of cancer. The work in Texas will be conducted by a newly created Division of the American Cancer Society with a Board of Directors on which are represented most of the agencies in the state having a logical or a legal interest in this problem. The majority of the Board must be physicians and there are included the members of

the Executive Council of the State Medical Association as well as the five members of the Association's Cancer Committee. The Division has employed a whole-time Executive Director, who will work on a statewide basis under the direction of an executive committee which includes the members of our cancer committee. He will work in the closest possible coöperation with the state cancer hospital, with the State Departments of Health, Welfare, and Education, and with the colleges of medicine and dentistry as well as with the State Medical Association through its cancer committee and executive Council. There are details to be worked out, but the encouraging thought is that something definite is being done about it.

Attention is directed to the Symposium on Cancer Research published in this number of the JOURNAL (page 41). This is the beginning of a study program, and a very good beginning, at that. There will be more of the same, and quite frequently.

The Retirement of Dr. Olin West, as Secretary-General Manager of the American Medical Association, takes from the greatest medical organization on earth the greatest Secretary-Manager we have ever known. We are grateful to Dr. West for his services, and hopeful that his retirement will be to his liking, and certainly that the state of his health will be conducive to that well-being which alone can make the decling years of an active man what they should be.

It would be futile to undertake adequately to evaluate the services of Dr. West except in a biographical sketch proper, We will content ourselves with quoting from an editorial in the March 30, 1946, number of *The Journal of the American Medical Association:*

"Dr. Olin West came to the American Medical Association with a record of experience in medicine and public health that especially fitted him for the positions that he assumed. His preliminary education was received at Howard College in Alabama, in which state he was born at Gadsden on July 12, 1874. He graduated from Vanderbilt University School of Medicine, Nashville, Tennessee, in 1898. In 1910, after twelve years of practice in Nashville and fifteen years as a member of the faculty of Vanderbilt University, first as instructor and later as assistant professor and associate professor in chemistry, Dr. West became director of the Rockefeller Sanitary Commission and International Health Board in Tennessee. Here he was especially effective in the great campaign against hookworm infection. In 1918 he became secretary and executive officer of the Tennessee State Board of Health and after four years gave up that position to become field secretary of the American Medical Association in association with Dr. Alexander Craig, who was at that time Secretary. Following the death of Dr. Craig, Dr. West was appointed Secretary by the Board of Trustees. Then when Dr. George H. Simmons resigned as Editor and General Manager of the Association in 1924, Dr. West continued in the position of Secretary and succeeded to the duties of General Manager.

"In the early activities for the organized medical profession Dr. West was president of the Middle Tennessee Medical Association and later secretary of the Tennessee State Medical Association and editor of its journal. His love for the art and tradition of medical science, his great personal compassion, his geniality and his friendliness have endeared him personally to many thousands of American physicians who have met him in office and who have had advantage of his personal counsel and judgment."

Addition to the Library Building Fund of the State Medical Association in the sum of $80.00, has been made since the list was published in the April JOURNAL. While all of these contributions will be acknowledged through the Report of the State Association Committee on Library Endowment, at the annual session, at Galveston, May 6-9, we will keep the editorial list up to date by the publication of the following additional contributions:

Austin-Waller Counties Medical Society	$ 5.00
Dallas County Medical Society	
Dr. Oscar M. Marchman, Dallas	25.00
Hardin-Tyler Counties Medical Society	
Dr. W. J. Poshataske, Silsbee	15.00
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Drs. Frank R. Rugeley and F. J. L. Blasingame, Wharton	25.00
	$105.00

CURRENT EDITORIAL COMMENT*

The Treatment of Rheumatic Fever.—With the widespread recognition of the fact that rheumatic fever is responsible for more deaths in the school age period than any other disease, as well as being an important cause of cardiac crippling in later life, renewed interest is being centered upon the causes, treatment, and prevention of this disease. The following constitutes a brief resume of some of the newer aspects of treatment.

Treatment of the Active Phase.—Absolute bed rest is regarded by all as essential in the active phase of the disease, which is defined as that period during which the patient exhibits symptoms and signs of infection and/or laboratory evidence of rheumatic activity. The temperature curve, pulse rate, erythrocyte sedimentation rate, and white blood cell and differential count constitute useful guides in evaluating the patient's

*This department of the JOURNAL presents editorial comments on current items pertaining to the science, art and practice of medicine, contributed by members of the State Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the State Medical Association of Texas to submit such discussions for this department. The discussions should not be more than 500 words in length.

progress. The diet should be liberally supplied with the so-called protective foods and a high vitamin supplement should be added. Salicylates have been used for years to control the exudative manifestations of rheumatic infection and Coburn has recently claimed that massive doses of sodium salicylate will actually shorten the course of the rheumatic infection by preventing the progression of the pathological process. He recommends maintaining the blood salicyl level at or above 35 mg. per 100 cc., which necessitates the administration of 0.2 to 0.3 Gm. of the drug per kilogram per twenty-four hours.

Coburn's observations have not been adequately confirmed and some dissenting opinions have already appeared in the literature, but this form of therapy deserves more widespread trial, provided one is alert to the dangers of acute salicylism. Any patient treated in this manner should be observed carefully for signs of toxicity, which include tinnitus, nausea and vomiting, hyperpnea and tachypnea, skin rashes, thrombocytopenia, and eventually severe intractable acidosis, coma, and death. Children are particularly susceptible to salicylate poisoning, and the drug should be given to them with caution. We believe that any toxic manifestation more severe than tinnitus and nausea constitutes an indication for stopping therapy. Since salicylates quite commonly induce hypoprothrombinemia and thus predispose to hemorrhage, vitamin K, in doses of 2 to 5 mg. per day, should be made an integral part of salicylate therapy, and the patient's prothrombin time should be checked at periodic intervals.

Not only are the sulfonamide drugs ineffective in the treatment of acute rheumatic fever, but there is some evidence that they are actually harmful. Swift has reported that the sulfonamide drugs aggravate rheumatic activity and also tend to be more toxic for the rheumatic than for the nonrheumatic person. Several recent reports on the use of penicillin in the treatment of acute rheumatic fever have indicated that this antibiotic is of no value.

Congestive heart failure may occur during an acute rheumatic episode, and in younger persons is almost always due to active rheumatic carditis rather than mechanical failure. The treatment of this complication is essentially the treatment for congestive heart failure from any cause. There is still some controversy concerning the use of digitalis during acute rheumatic carditis, but most workers are agreed that congestive failure constitutes an indication for digitalis therapy, although it is admittedlv less effective when an acutely diseased myocardium is the precipitating cause. The patient should be observed carefully for toxic symptoms during digitalization, bearing in mind that digitalis may precipitate heart block in a person whose conduction time is already slowed by rheumatic carditis. If diuretics are to be administered, they should be given prior to digitalis therapy, since a sudden diuresis may increase the effective concentration of digitalis in the system to the point where toxic manifestations may occur.

Intervals Between Attacks.—There is an unfortunate tendency among physicians to keep rheumatic fever patients in bed for long periods of time, sometimes months or years, regardless of the status of their infection. Although almost everyone agrees that the treatment of the acute attack necessitates absolute bed rest, there is a growing conviction that bed rest in the absence of active infection is not only of no avail, but may actually be harmful. All the evidence indicates that the progression of the rheumatic lesion occurs during the period of active carditis, and that after healing has occurred, exercise does not further the progression of the lesion. After signs of active infection have subsided, the patient should be permitted out of bed and gradually allowed to resume activity to the point of tolerance.

In many persons, the functional capacity of the heart appears to be unimpaired in spite of the persistence of murmurs, and it is our conviction that such persons should be allowed to engage in all forms of exercise which do not induce dyspnea or exhaustion. This regime has been without ill effects in many of the large rheumatic clinics over the country and does much to prevent development of a cardiac neurosis. The question of elimination of foci of infection in a quiescent interval is one which is still *sub judice.* Analysis of several large series of patients has failed to reveal that tonsillectomy decreases the number of rheumatic recrudescences. Most workers believe that the same indications for the removal of infected foci should be used in rheumatic subjects as are used in nonrheumatic persons. It is important to guard against the development of upper respiratory infections in rheumatic persons by attaining optimum nutrition and striving for good hygiene in every day life.

Prophylactic Use of Sulfonamides.—Although the sulfonamide drugs are ineffective in the treatment of the acute attack, recent experience has indicated that they are remarkably effective in cutting down the incidence of rheumatic recrudesences. Most workers have used sulfanilamide for this

purpose, but the indications are that sulfadiazine is at least as effective. The drug is administered in daily doses of from 1 to 2 Gm. the object being to maintain a level of from 2 to 3 mg. per 100 cc. of blood. At this dosage level, very few drug reactions have been encountered. It is a wise precaution to check the hemoglobin and leukocyte count weekly for a period of four to six weeks after starting drug therapy, since the few drug reactions which have been reported have occurred early in therapy. The present evidence would indicate that this type of prophylactic medication should be continuous throughout the year for a period of several years.

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TRANSTHORACIC RESECTION OF THE CARDIA AND ESOPHAGUS

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The development of the transthoracic approach to lesions that involve the lower portion of the espohagus and the cardia of the stomach is a recent surgical achievement although the desirability of such a procedure long has been recognized. Real progress in this field required the development of methods of anesthesia for such operations, an understanding of the physiologic changes that occur in the cardiac and respiratory systems when the thorax is opened, and the development of means of controlling these changes.

With present knowledge, the thorax is just as accessible to surgical exploration as is the abdomen and the risk of thoracotomy is no greater than that of laparotomy. It is no longer necessary to deny any patient the benefit of surgical resection for lesions of the lower part of the esophagus or upper part of the stomach merely because of their anatomic location. The scope of the field that has been opened by the development of the transthoracic approach is indicated by the fact that 10 per cent of all carcinomas of the stomach occur in the cardia and 33 to 50 per cent of all carcinomas of the esophagus occur in the lower third of the esophagus. Since the stomach is the most common site of carcinoma and the esophagus ranks as the fourth most common site, it becomes apparent that the cardia of the stomach and lower part of the esophagus present one of the major problems in surgical treatment of malignant disease and, therefore, that the transthoracic approach is of great importance.

As long ago as 1895, Biondi[3] attempted esophagogastrostomy on dogs. In 1907, Wendel[10] attempted the procedure on a patient but was unsuccessful. Voelcker[9] in 1908 performed the first successful esophagogastrostomy on a patient after removing a carcinoma of the cardia by a transabdominal route. Adams and Phemister[1] reported the first successful operation by the transthoracic route in 1938. Since that time successful operations for a variety of lesions in the cardia and lower part of the esophagus have been reported by a number of surgeons, notably Churchill and Sweet,[5] Garlock,[6, 7] Adams and Phemister,[1] Carter, Stevenson and Abbott,[4] and Ochsner and DeBakey.[8] Gradually the technic for transthoracic resection of the lower portion of the esophagus and the cardia has been developed and improved.

At present, the risk of transthoracic operations on the stomach is not much greater than the risk of operations performed for carcinoma in the lower portion of the stomach by the abdominal route. Although a large series of cases has not been followed for a period of time sufficient to warrant definite statistics regarding prognosis, it is my impression that the figures will compare favorably with those for carcinoma removed by the abdominal route.

It is interesting to note that most of the work in this field has been done by men who were primarily abdominal rather than thoracic surgeons. I think this is as it should be because the most difficult technical problems of the operation are concerned with resection of the intra-abdominal portion of the stomach and with the establishment of a good anastomosis, procedures for which the abdominal surgeon is particularly qualified.

A series of 57 cases in which the transthoracic approach was employed because of carcinoma of the lower part of the esophagus or cardia forms the basis for this report (table 1).

TABLE 1.—*Transthoracic Operations in 57 Cases.**

	No. of Cases	Hospital Deaths
Exploration (inoperable)	24	0
Resection	33	5†
Total	57	5

*Of the patients 45 were males; 12 females.
†No hospital deaths in last 18 cases in which resection was performed.

DIAGNOSIS

Carcinoma of the cardia of the stomach and carcinoma of the lower end of the stomach produce symptoms that are similar in many cases. Pathologically, they are different, for those carcinomas that arise in the

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esophagus are squamous cell carcinomas and those in the stomach are adenocarcinomas. However, the lymphatic drainage of the lower third of the esophagus is much the same as that of the cardia and the sites of extension and metastasis are similar.

The most common symptom mentioned by patients who have neoplasms in this region is dysphagia. In most of my cases dysphagia has been the major presenting symptom. This may have been present for only a few weeks or for as long as a year. The average duration in the series of cases I have observed was about five months.

The duration of dysphagia is not an accurate indication of the operability of the lesion. I have performed exploratory operations in cases in which there was a history of dysphagia of only a month's duration and have found hopelessly inoperable lesions, whereas in other cases in which dysphagia had been present for more than a year, resection could be accomplished successfully. It should be emphasized, however, that the development of dysphagia in any case demands investigation of the esophagus by roentgenoscopy, roentgenography, and esophagoscopy. The greatest opportunity to cure these patients lies in early diagnosis of presence of the lesion.

TABLE 2.—*Conditions for which Transthoracic Resection of the Cardia and Lower End of the Esophagus was Performed and Associated Procedures: 33 Cases.*

	No. of Cases
Lesions for which transthoracic resection was performed:	
Carcinoma arising in the stomach	27
Carcinoma of the esophagus	3
Benign gastric ulcer	1
Cardiospasm	1
Leiomyoma of cardia	1
Procedures performed in association with transthoracic resection:	
Splenectomy	14
Resection of tail of pancreas	3

Loss of weight is another outstanding sign of this disease. It is caused by inability of the patient to eat rather than by the extent of the malignant growth in most instances. Loss of weight of from 10 to 50 pounds (4.5 to 22.7 Kg.) had occurred in all the patients I have observed. Loss of weight in itself does not constitute a contraindication to surgical treatment.

Other symptoms that have been noted occasionally are hiccup, belching, regurgitation, heartburn, nausea, and vomiting.

Means of accurately diagnosing most neoplasms of the cardia of the stomach and lower portion of the esophagus are readily available. The symptoms suggest the diagnosis; roentgenologic and endoscopic studies are necessary to confirm it. Although it is generally recognized that the cardia of the stomach is the region in which roentgenologic examination is most difficult, there were only 2 cases in the series of 57 cases that I am reporting in which the lesion had not been recognized.

Esophagoscopy is essential because it permits visualization of the lesion and removal of a specimen of tissue from the lesion so that an accurate pathologic diagnosis is possible. In addition, it often provides information as to the exact location and extent of the lesion. Gastroscopy is rarely indicated because the cardia cannot be examined adequately by this means. In the series of cases I am reporting herein, esophagoscopy was carried out in almost every case and a positive diagnosis was obtained on biopsy in most cases before operation was undertaken. Negative findings on esophagoscopic examination should not justify denying a patient exploration, however, if the roentgenologic findings and clinical story suggest the presence of a lesion.

SELECTION OF OPERATION

It is now generally agreed that lesions arising primarily in the esophagus should be approached through the thorax. A few small carcinomas of the lower end of the esophagus have been removed successfully by the abdominal route after the lower end of the esophagus has been mobilized and brought below the diaphragm. The inadequacy and difficulty of such a procedure is obvious.

There is more disagreement about carcinomas of the cardia. Some surgeons have contended that total gastrectomy by the abdominal route is preferable to resection of the cardia and esophagogastrostomy by transthoracic route.

Recently my associates and I have made some studies that indicate clearly the advantages of the transthoracic route. It is well known that carcinoma rarely passes through the pyloric block into the duodenum. Unfortunately, there is no such block at the cardia. Instead, there seems to be a tendency for carcinoma of the cardia to extend along the submucosal layers up the esophagus. Careful pathologic studies and measurements of our specimens have shown that carcinoma of the cardia may extend along the submucosa of the esophagus for several centimeters above the gross lesion. I am convinced that total gastrectomy by the abdominal route will fail to remove the lesion by a sufficient margin in many cases of carcinoma of the cardia. Only transthoracic resection will permit an adequate excision of the esophageal extensions of these lesions.

Dysphagia is the most accurate criterion for determining in which cases carcinoma of

the cardia should be removed by the abdominal route and in which by the thoracic approach. If there is no dysphagia, total gastrectomy performed transabdominally probably will provide adequate excision, but if dysphagia is present, transthoracic resection of the cardia and lower end of the esophagus is essential. As for the risk of the two procedures, I believe it is about the same. In my personal experience, I have done approximately an equal number of total gastrectomies by the abdominal approach and transthoracic resections of the stomach and esophagus; the mortality rate has been almost identical. The disadvantages of the transthoracic approach are that it involves opening both the peritoneal and the pleural cavities and, therefore, offers opportunity for all the surgical complications that can occur in both cavities. Its advantage is that it offers free exposure of the operative site, accurate mobilization of the involved viscera, radical excision of the growth and its associated lymph nodes, and physiologic restoration of the esophagogastric continuity.

PREOPERATIVE MEASURES

Patients selected for tranthoracic exploration of lesions of the lower portion of the esophagus and the cardia of the stomach obviously require a complete and thorough examination to discover, if possible, any extension of the malignant process or other condition that might contraindicate operation. Most of these patients are 40 to 65 years of age, and, therefore, often are afflicted with cardiac, pulmonary, or renal conditions that may increase the hazard of a surgical procedure. Many of these patients are dehydrated, malnourished, and anemic and have vitamin deficiencies by the time they seek help from a surgeon. They should be hospitalized for preoperative preparation with transfusions, parenteral administration of vitamins, and intravenous administration of fluids so that they will be in the best possible condition to undergo the surgical ordeal.

Some surgeons have recommended gastrostomy or jejunostomy to improve the patient's nutrition before they proceed with resection. My attitude has been that if the patient's condition will permit the operation at all, it can be done without this preliminary procedure. Means of providing nutrition in the immediate postoperative period can be accomplished at the time the resection is carried out, if necessary. Preliminary gastrostomy is certainly to be condemned since it will interfere seriously with the mobilization of the stomach at the time resection is undertaken. Preliminary jejunostomy is a more logical procedure, but I object to it for these reasons: (1) It delays the removal of the lesion. (2) Any operation, even a simple one like jejunostomy, takes something out of a patient that is not quickly regained and leaves him a poorer candidate for the major procedure. I avoid staged operations of all types whenever possible. (3) I do not believe that a patient with carcinoma who could not tolerate operation without jejunostomy could be brought into condition for operation by means of a jejunostomy within a reasonable period of time.

It was formerly the custom at the Mayo Clinic to give all patients who were to undergo transthoracic exploration sulfadiazine for several days in sufficient quantity to establish a satisfactory level of the drug in the blood. I am convinced that it was helpful in reducing complications. Since penicillin has been available, it has been used both preoperatively and postoperatively with satisfactory results.

ANESTHESIA

The anesthesia for operations involving thoracotomy is important. Obviously, the first requirement is a skilled anesthetist who has full understanding of respiratory physiology when the thorax is opened. At the clinic an intratracheal tube is inserted routinely after induction of gas anesthesia. Both cyclopropane and ether have been used, but now ether is used routinely. It is possible to administer a higher concentration of oxygen with ether than with any other agent, even cyclopropane, and when one lung is partially collapsed for the length of time that is necessary for transthoracic resection, that is an important factor. Furthermore, there is less oozing of blood with ether than with cyclopropane. The old idea that ether is an irritant and is contraindicated in thoracic surgery is erroneous. Ether is not more irritating than any other inhalation type of agent. I use it routinely for operations on patients with pulmonary tuberculosis.

TABLE 3.—*Causes of Death of 5 Patients.*

Condition	Number*	Days After Operation
Thyrotoxicosis	1	5
Brain abscess secondary to empyema	1	37
Mediastinitis due to leak of anastomosis	1	10
Undertermined	2	4 and 10

*Two deaths occurred after transthoracic total gastrectomy.

TECHNIC

I am unable to see the necessity of abdominal exploration of lesions of the cardia to determine their operability as a preliminary to transthoracic exploration, as has been advocated by Garlock. I am convinced that the operability of a lesion can be determined accurately by the transthoracic route and that

the risk of transthoracic exploration is no greater than that of abdominal exploration. In those cases in which the lesion is operable, preliminary abdominal exploration constitutes an unnecessary burden for the patient. In 24 cases in which I performed transthoracic explorations (table 1) and the lesion proved to be inoperable, there were no postoperative complications and all patients were able to leave the hospital within a week or ten days. From my experience, I believe that primary transthoracic exploration is the procedure of choice in the lesions of the cardia which produce dysphagia.

After the patient is anesthetized and the intratracheal tube has been inserted, the patient is turned so that his right side is down and the left lower portion of the chest is readily accessible. After the operative site has been prepared and draped, a long incision is made along the ninth rib. Subperiosteal resection of the ninth rib is performed. The pleura is then opened. The lung is allowed to collapse partially and is retracted to expose the diaphragm. The left phrenic nerve is readily visualized as it passes over the pericardium. The nerve is injected with procaine to produce temporary paralysis of the diaphragm. The central tendinous portion of the diaphragm is opened sufficiently so that the abdomen can be examined. The entire upper portion of the abdomen is readily accessible to examination and inspection. It is even possible to examine the pelvis.

The extent of the lesion, its attachments and any metastatic lesions can be determined readily. If the lesion is inoperable, the diaphragm is repaired, the lung inflated and the thoracic wall is closed. If the lesion is removable, the incision in the diaphragm is extended to the esophageal hiatus, and the upper end of the stomach and the lower end of the esophagus are mobilized. If necessary, the spleen, the tail of the pancreas, and the diaphragm adjacent to the lesion can be readily included in the resection. The stomach is severed below the lesion and the lower end of the stomach is closed. The esophagus is severed and the lower end of the esophagus and the cardia are removed together. An anastomosis of the end of the esophagus to the anterior wall of the remaining segment of stomach is then performed; two rows of interrupted silk sutures are used for this anastomosis. As much of the stomach as possible is brought above the diaphragm so that there will be no tension on the anastomosis. The stomach is attached to the edge of the diaphragm.

The operative site is washed thoroughly with saline solution. A catheter is inserted in the pleural space for temporary drainage. The phrenic nerve is crushed so that the diaphragm will remain paralyzed until healing has occurred. A catheter is inserted through the nostril and down past the anastomosis into the stomach to provide a means of early postoperative feeding. The lung then is inflated by the anesthetist. The thoracic wall is closed in layers. At the conclusion of the operation, bronchoscopy is performed in order to be sure that the tracheobronchial tree is free of secretion that may cause postoperative pulmonary complications.

POSTOPERATIVE CARE

The patient is placed in an oxygen tent on his return to his room. Usually not more than twenty-four hours of oxygen therapy is necessary. From 500 to 1,000 cc. of blood usually is administered during the course of the operation. Further transfusions are administered during the postoperative period if necessary. The catheter in the chest is connected with a water seal system so that negative pressure is maintained in the pleural space. This permits removal of the pleural effusion that results from the operation and keeps the lung completely expanded. The catheter in the pleural space usually is removed from forty-eight to seventy-two hours after operation.

TABLE 4.—*Complications.*

	No. of Cases
Mediastinitis caused by leak at site of anastomosis	1
Empyema	2
With brain abscess	1
Wound infection (slight)	4
Thrombophlebitis	1
Laryngeal edema (tracheotomy)	1
Thyrotoxicosis	1

A sufficient amount of fluid is administered intravenously to maintain an output of urine of about 1,000 cc. daily until the patient is taking adequate fluids orally. Forty-eight hours after operation water is administered through the tube inserted through the nose and esophagus into the stomach, and seventy-two hours after operation the formula devised for jejunal feeding is given. On the fourth or fifth day after operation the patient is allowed to start drinking water and is placed on a progressive type of diet. By the tenth or twelfth postoperative day, most patients tolerate without difficulty an ulcer type of diet commonly used for ambulatory patients.

Patients are given penicillin in doses of 100,000 units daily by intramuscular injection for one week postoperatively.

Most patients are out of bed by the sixth or seventh postoperative day and are able to leave the hospital on the twelfth to fourteenth postoperative day. It is really surprising to see how little reaction many patients h

from the operation. It is my impression that reaction and shock are considerably less from this procedure than from total gastrectomy. Beecher[2] has reported a similar experience which he attributed to the fact that the transthoracic operation does not require the depth of anesthesia that abdominal operations do and that the exposure is so satisfactory that less pulling of tissues and trauma occur.

There have been surprisingly few postoperative pulmonary complications in these cases. This success may be attributed to several factors: (1) bronchoscopy is carried out postoperatively; (2) postoperative pain and interference from cough are less than after abdominal operations; (3) the depth of anesthesia required for operation is not great; and (4) patients are given penicillin postoperatively as a routine measure.

RESULTS IN THIS SERIES

My experience with the transthoracic approach to lesions of the cardia of the stomach and lower portion of the esophagus is outlined in tables 1 to 4. So far as it has been possible to determine, carcinoma has recurred in 7 of the 33 cases in which resection was performed. This number does not seem higher than is to be expected after any operation for carcinoma of the stomach. In 2 cases stricture developed at the site of the anastomosis and dilatation was required. One patient required pyloroplasty for pylorospasm five months after resection. It has been noted that section of the vagus nerves, which is always necessary, frequently does result in some temporary pylorospasm and delay in emptying the stomach.

Two patients are well three years after resection; 3 are well two years after resection; 2 are well eighteen months after operation; and 12 patients operated on within the last year are well.

SUMMARY

The transthoracic approach to lesions of the lower portion of the esophagus and the cardia of the stomach permits surgical excision of many lesions hitherto inaccessible. This approach is based on sound surgical principles. It provides adequate exposure, permits accurate removal of lesions in this region, and preserves esophagogastric continuity. The transthoracic approach is indicated in all cases of carcinoma of the lower portion of the esophagus and of carcinoma of the cardia in which dysphagia is present.

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THE USE OF PENTOTHAL SODIUM IN THYROID SURGERY

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Pentothal sodium is the most dramatic and the most rapidly acting of any general anesthetic agent that we have at our disposal. It is especially well adapted to use in thyroid surgery.

Pentothal sodium is a product of Abbott Laboratories. It differs from nembutal (pentobarbital sodium) only by the replacement of one of the atoms of oxygen by a sulfur atom on the urea side of the molecule, its chemical name being sodium ethyl (l-methylbutyl-thiobarbituric acid.)[1] There is no absolute proof as to the correct interpretation of the chemistry in the cell that causes the anesthetic effect.[2] The anesthetic effect of pentothal sodium is established by its action upon the central nervous system. As with other useful narcotics, the brain is affected first, the spinal cord next, and the centers of the medulla oblongata last. The rapid action of pentothal sodium is due to the fact that it reaches the nervous system directly from the blood stream before a considerable amount can be destroyed or eliminated.

No physiologist has ever been able to determine the disposition of pentothal sodium after it is injected into the body. Kohn Richards[4] stated that as yet it has not been recovered in any secretion or excretion as such, nor have its break-down products been identified. While one is inclined to believe that sodium pentothal would be destroyed in the liver, recent work by Kohn Richards[3] and other investigators[5] indicate the liver as a place of destruction improbable.

In toxic doses of pentothal sodium, a depression of the respiratory and vasomotor centers in the medulla oblongata occurs.[2] It is believed that anoxemia, if occurring in pentothal sodium anesthesia, is due to the de-

From the Wichita Falls Clinic, Wichita Falls, Texas.
Read before the Texas Surgical Society, San Antonio, Texas, October 9, 1945.

creased oxygen supply to the lungs following depression of the respiratory centers and not to a peripheral action of the drug upon the oxygen metabolism of the body cells. If a patent airway is secured and the anesthesia is not carried deep enough to interfere with the necessary respiration, no sign of anoxemia should occur. If the operation requires anesthetic levels in which a decrease of respiration cannot be avoided, oxygen administration will obviate anoxemia.

When we first began to use pentothal sodium, we required that it be given by a doctor because it was feared that such a powerful anesthetic agent should not be trusted to nurse anesthetists. It did not require a long period of time for us to realize that pentothal sodium is best given by one who is accustomed to administering anesthetics. Time and use of pentothal sodium have proved that this is correct. Like administering any anesthetic agent, caution, skill, alertness, and practice are required.

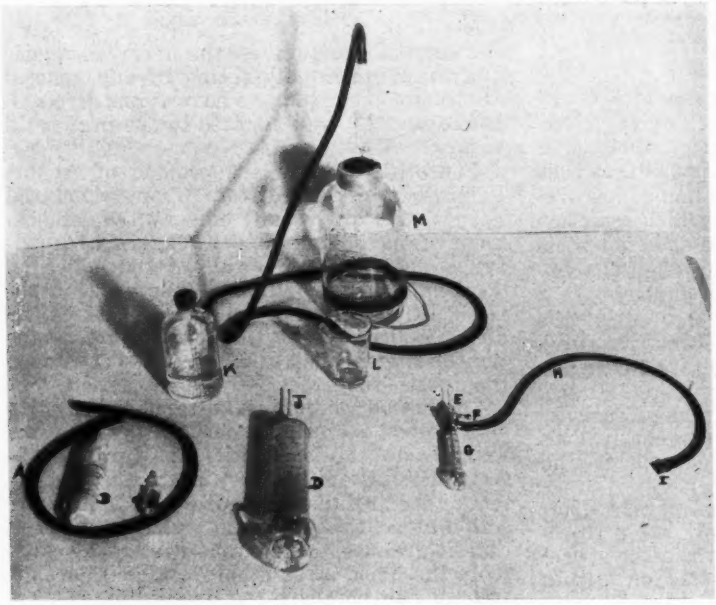

FIG. 1. Apparatus for administration of pentothal sodium. *A*, tourniquet; *B*, pentothal sodium; *C*, coramine (Ciba); *D*, 50 cc. syringe; *E*, 20 gauge needle; *F*, three-way stopcock; *G*, 2 cc. syringe; *H*, sulfur free rubber tube; *I*, adaptor to attach 50 cc. syringe; *J*, 15 gauge needle for mixing pentothal sodium and aspirating it into syringe; *K*, sterile distilled water; *L*, medicine glass; *M*, intravenous fluid with connections complete.

Proper preoperative medication is very important. At bedtime the night before operation the patient is given 1.5 gr. of nembutal (Abbott). If the patient is very toxic, this is repeated two hours before operation. Morphine sulfate grains 1/6 or pantopon grains 1/6 and atropine grains 1/150 are given thirty minutes before operation.

We routinely use 2.5 per cent solution of pentothal sodium with one ampule of coramine (Ciba) per gram. Coramine is reported to have questionable value as a respiratory stimulant, but we believe that it has definite value here.

One of the fundamental rules to practice in the use of pentothal sodium is to begin the administration of the anesthetic slowly. Two cc. of the 2.5 per cent solution are injected slowly. The condition of the patient is observed. After a pause of a few seconds the patient is advised to count aloud slowly. On the count of five an additional 1 or 2 cc. are given, and this is repeated on the count of multiples of five. When the patient ceases counting, no more is given until the respirations are regular and the pulse is noted to be regular and full; the jaw muscles are then tested; if they are relaxed, the anesthetic is deep enough for the surgeon to begin. In my opinion this is one of the most important phases of the anesthetic. Too often surgeons are inclined to begin the procedure as soon as the patient ceases counting. If a few additional minutes are allowed the anesthetist at this time, a better anesthetic and a better condition in the patient are assured. Time should be allowed for the respiration to become regular, for a pharyngeal airway to be introduced if needed, and for oxygen to be started. Sufficient time should be allowed for the anesthetist to determine if the pentothal sodium must be discontinued because of conditions such as severe coughing, generalized muscular twitching, vomiting, and severe hiccough. The anesthetist must observe muscle relaxation of the jaw and respiratory rate to determine when more sodium pentothal must be administered. It is a continuous process as is the administration of drop ether.

The apparatus for the administration of pentothal sodium which we have found to be very useful is seen in figures 1, 2, 3, and 4.

It is our practice when pentothal sodium is given for thyroid surgery to begin its in-

jection in the patient's room without his knowing that he is receiving an anesthetic agent. When light sleep occurs he is transferred to the carriage and taken to the operating room where the anesthesia is continued. This procedure has a definite beneficial effect upon the patient as there is no apprehension.

FIG. 2. Apparatus used when no intravenous fluid is needed, consisting of 50 cc. syringe, sulfur free rubber tube, three-way stopcock, 2 cc. syringe, and 20 gauge needle.

Pentothal sodium is well adapted to use in conjunction with other anesthetic agents. It is especially adapted to use with local injection of novocaine.

As a matter of interest I have reviewed the anesthetics used in the last 100 thyroidectomies which we have performed (Table 1). Of these patients 19 received pentothal sodium alone, 46 received pentothal sodium in conjunction with 1 per cent novocaine injected locally; 5 received pentothal sodium and nitrous oxide and oxygen combined; 13 received only novocaine injected locally; 17 received a nitrous oxide, oxygen, and ether combination.

TABLE 1.—*Anesthetics Used in 100 Thyroidectomies.*

Type of Goiter	No. of Cases	Sodium Pentothal	Sodium Pentothal + Local	Nitrous Oxide + Ether	Local	Sodium Pentothal + Nitrous Oxide
Exophthalmic	23	7	9	6	1	
Adenoma, Toxic	44	7	21	6	7	3
Adenoma, Nontoxic	27	4	12	5	5	1
Adenoma, Fetal	3		3			
Carcinoma	3	1	1			1
Total	100	19	46	17	13	5

Study of table 2 will indicate that in those cases in which pentothal sodium was used the pulse was definitely slower at the end of the operative procedure.

When pentothal sodium is used in conjunction with local injection of novocaine, a relatively small amount of pentothal sodium is required. We prefer to use no more than 2 Gm. of pentothal sodium. In cases when more anesthesia is required inhalation of nitrous oxide and oxygen is preferred.

The recovery time postoperatively is practically the same regardless of the type of anesthesia used. There was no death caused by anesthetic in the cases recorded in the

TABLE 2.—*Effect on Pulse of Anesthetics Used in 100 Thyroidectomies.*

Anesthetic	No. of Cases	Average Basal Metabolic Rate	Average Pulse End of Operation	Average High Pulse Postoperatively	Average High Temperature Postoperatively	Day Pulse Returned To 80 or Below
Sodium Pentothal	19	+38	98	110	101.6	3.6
Sodium Pentothal + Local 1% Novocaine	46	+26.6	99	110	101	3.6
Sodium Pentothal + Nitrous Oxide	5	+24.6	85	120	101.6	3.6
Local 1% Novocaine	13	+23	110	109	100.8	3.3
Nitrous Oxide + Ether	17	+32	109	115	101.2	3.3

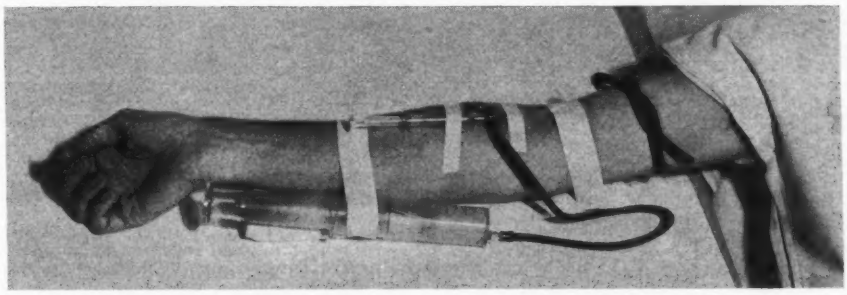

FIG. 3. Apparatus of figure 2 fixed with adhesive tape to arm and arm board, ready for use.

tables. There was one death in the group. This occurred in a man who had a far advanced adenocarcinoma of the thyroid, and who died evidently of a cerebral metastasis on the second postoperative day.

CONCLUSION

Sodium pentothal if administered properly is safe, and if used with local injection of novocaine is especially useful in thyroid surgery. It relieves the apprehension of the patient. The depth of anesthesia can be altered easily and rapidly. The patient is asleep so there is no straining. The initial pulse rate usually decreases during the anesthesia and the pulse rate during the progress of the operation is not accelerated as much as it is under the other anesthetic agents mentioned. An operative procedure which is often difficult is facilitated. The postoperative reaction is easy: it is more like awakening from normal sleep. For these reasons we consider pentothal sodium anesthesia ideal for thyroid surgery.

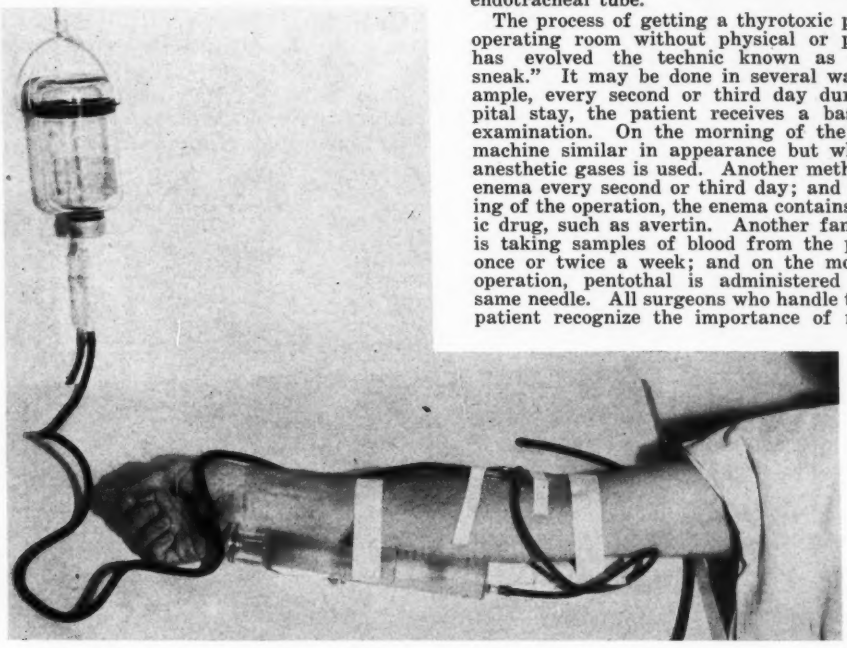

FIG. 4. Apparatus in use with 2 cc. syringe removed and in its place adaptor connecting flask containing intravenous fluid. By turning the stopcock, pentothal sodium or intravenous fluid can be injected into the vein.

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ABSTRACT OF DISCUSSION

Dr. H. C. Slocum, Galveston: Dr. Crump's paper concerning the use of sodium pentothal in thyroid surgery is very interesting. It brings out a technic which surgeons recognize as being necessary for the proper management of patients with thyrotoxic disease. As Dr. Crump has mentioned, the pentothal is given to the patient before being taken to the operating room, thus producing a basal narcosis. Under these circumstances, the basal narcosis of pentothal must be complemented by local infiltration of procaine, the use of gas or ether, or the cocainization of the larynx with introduction of an endotracheal tube.

The process of getting a thyrotoxic patient to the operating room without physical or psychic upset has evolved the technic known as the "thyroid sneak." It may be done in several ways. For example, every second or third day during the hospital stay, the patient receives a basal metabolic examination. On the morning of the operation, a machine similar in appearance but which contains anesthetic gases is used. Another method is a small enema every second or third day; and on the morning of the operation, the enema contains an anesthetic drug, such as avertin. Another familiar method is taking samples of blood from the patient's vein once or twice a week; and on the morning of the operation, pentothal is administered through the same needle. All surgeons who handle the thyrotoxic patient recognize the importance of not upsetting the patient before operation, thus keeping the basal metabolic rate as near a physiologic level as possible.

The barbiturates are hypnotics and differ from narcotics in that pain relief is accomplished only by the production of sleep. This accounts for the fact that pentothal alone cannot be used in operations about the head and neck. In order to obtund the reflex irritability, which is particularly dominant in the neck structures, other drugs and technics must be combined with the pentothal. To aggravate irritable reflexes in any patient, particularly the thyrotoxic patient, is to produce reflex and mechanical obstruction to respiration and abnormal responses of the cardiovascular system which may help to precipitate a thyroid storm or crisis. The high basal metabolic rate indicates the abnormal demand of the tissues for oxygen. Any hindrance to the efficient transportation of respired gases is, obviously, not to be desired.

Sodium pentothal can very well be used in thyroid surgery in the capacity of a basal anesthetic drug. The most important factor necessitated in its use is

the presence of a well-trained anesthetist who is competent in recognizing and facilitating the treatment of the many respiratory and circulatory complications which occur during the course of surgery for thyroid disease.

CENTRAL BONE TUMORS

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The following is a report of some bone tumors which the writer has treated and followed up over a period of years. The results have been uniformly good. There was no question of malignancy except in 1 case and even that was diagnosed as benign by the pathologists at the time of operation. The radiologist insisted that it was an osteogenic sarcoma and most of the pathologists have since come to regard it as malignant. The patient elected amputation in that case and it would now appear that this was fortunate in view of the changed pathological diagnosis and the excellent result obtained. In all other cases the treatment was conservative. The tumors were adequately exposed by removal of cortical bone, meticulous curettage was done, and the cavity walls were carefully gone over with the cautery, either actual (heat) or chemical. Autogenous bone grafts were used in 1 case to expedite the filling of the bony defect.

CASE REPORTS

CASE 1.—*(Giant Cell Tumor).*—J. C. F., a white man, aged 30 years, single, a farmer, gave a history of a small, painful area on the anterolateral aspect of the right thigh. He had received a kick from a mule at that point about one and one-half years before admission to Baylor Hospital. The injury had not appeared to be serious at the time and the soreness had largely disappeared after a few days, a slightly tender spot about the size of a 25-cent piece remaining. For the past year he had noticed increased pain there and had felt a hard swelling beneath the muscles in that area. Aspirin afforded him relief. Examination disclosed an indurated swelling at the point of complaint, the anterolateral side of the right thigh, middle third.

The roentgenograms disclosed a semifusiform enlargement on the lateral side of the femur, the proximal and distal portions of which were of compact new-formed bone with a central rarefied area. This latter did not appear to penetrate the marrow cavity and measured .625 by 1.25 inches. The radiologist called the lesion an "old periostitis . . . with bone abscess," suggesting the possibility of a typhoid infection to which some credence was lent by a history of "walking slow fever" some twelve years before admission.

Operation was done May 17, 1923. The soft parts were incised directly over the mass and the outer layer of compact bone was removed with osteotome to expose the tumor, which was largely of soft tissue. The contents of the bone pocket were carefully curetted and the thermocautery was applied to the limiting walls. It was used primarily to check bleeding from a small artery in the bone. Recovery was uneventful and the patient was free of symptoms upon discharge from the hospital.

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The microscopic findings as reported by Dr. George T. Caldwell were as follows:

"The mass consists of numerous bony spicules between which there is a relatively abundant fibrous tissue containing many gaint cells of myeloid type. The giant cells vary moderately in size and shape, but are predominantly small. The stroma is relatively mature and mitotic figures are few. Pathological diagnosis: Giant cell tumor, benign type."

A recent letter states the patient has been quite well for twenty-two years. Roentgenograms made

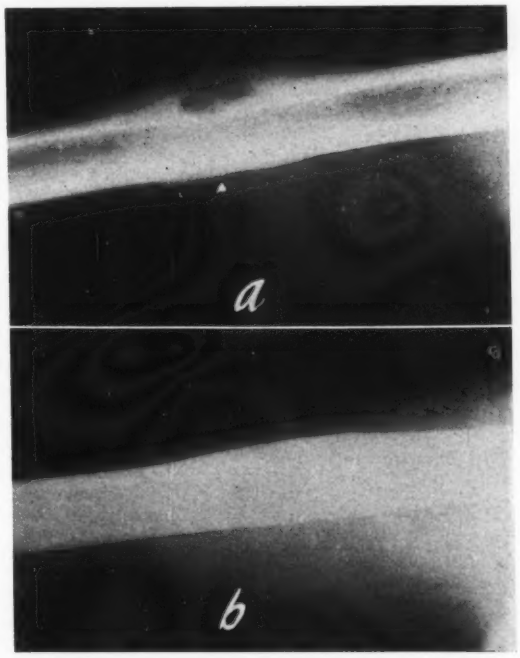

FIG. 1*a*. Giant cell tumor of shaft of femur at site of mule kick (Case 1).
b. Same area of femur twenty-two years after operative cure.

June 29, 1945, disclosed no evidence of the tumor, some increased density in the area formerly occupied by it.

The diaphysis is an unusual location for a giant cell tumor, as such tumors are commonly found in the epiphyseal ends of the long bones. That fact, together with the development of this tumor within a semifusiform mass of new-formed bone along the femoral shaft, leads one to speculate on the possibility that this tumor may have developed at the site of a subperiosteal hematoma (traumatic from mule kick) which had resolved itself by new-bone proliferation.

CASE 2.—*(Xanthoma.)*—B. B., a white boy, was 13 years old at the time of operation. The lesion was situated in the proximal end of the tibial diaphysis, which is quite unusual, and was further remarkable in that the clinical symptoms were largely in the neighboring knee joint where no roentgen evidence of the disease was found, and the symptoms disappeared following extirpation of the tumor.

This patient was under observation at the Freeman Memorial Clinic for over three years before consent to operate was obtained. On his admission, the chief complaint was swelling of the right knee joint with mild soreness. Some 25 cc. of "serous, slightly turbid, straw-colored fluid" was aspirated

from the joint and a diagnosis of "synovitis of right knee with serious effusion" was made. A few weeks later, the boy was referred to the orthopedic department where it was noted that there was 1 inch of swelling (circumference measurement) with slight excess fluid in the joint. The roentgenograms disclosed an area of rarefaction in the right tibia 1.5 inches distal to the proximal epiphyseal line. This area was ovoid in shape, measured .625 by 2 inches, and was situated in the lateral half of the bone where the cortex of the tibia appeared thinned out and bulged somewhat toward the fibula. The margins of the area were irregular but well defined and some fine trabeculation was noted within. A tentative diagnosis of giant cell tumor or bone cyst was made.

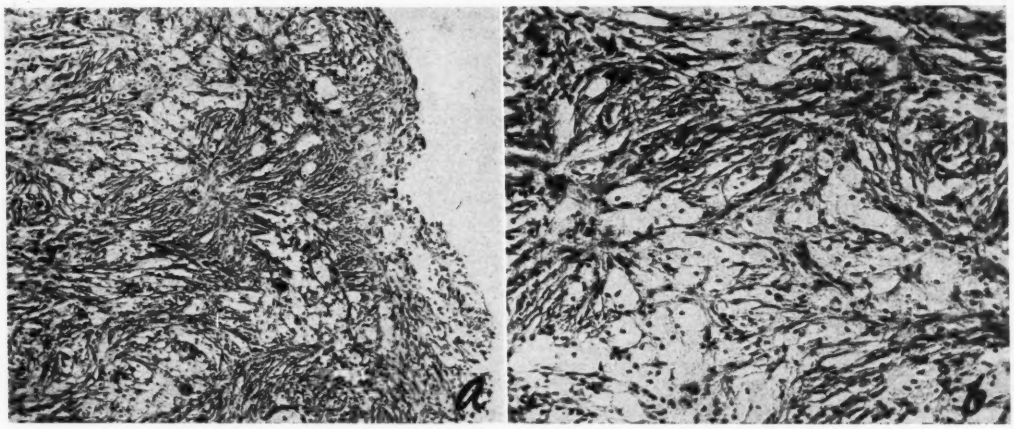

FIG. 2a. Low power view showing a fibrous tissue stroma consisting of fibroblasts among which many "foam" or xanthoma cells are located (Case 2).
b. High power view of same microscopic section.

Further observation during succeeding months disclosed only mild swelling of the knee joint with some exudate present. The patient complained very little. Roentgenograms after two and a half years showed no increase in vertical length but some increase in breadth of the lesion, which had extended across the bone marrow into the medial side of the bone. A recurrence of the knee swelling was noted a few days before operation.

Operation was done on October 29, 1928, at Parkland Hospital. Incision was made just lateral to the tibial crest, the muscles being reflected to expose the bony cortex, which was removed with osteotome to uncover the tumor. The tumor tissue was described as grayish, soft in consistency for the most part but containing some thin bony trabeculae which afforded slight resistance to the curette. Thorough curettage was done followed by the application of the thermocautery to the limiting walls.

The pathological report as made by Dr. J. L. Goforth was as follows:

"This tissue grossly has a buff yellow appearance and is so granular in several instances that it gives the picture of necrotic tissue . . . The picture grossly is not that of giant cell tumor. Several sections through different pieces of tissue give a constant picture which is not that of giant cell tumor. The stroma is composed of fibroblasts, some mature, others relatively immature. Scattered throughout this rather dense stroma many foam or xanthoma cells are noted. They occur singly, in strands, and in patches. These cells possess tiny deeply-staining nuclei and have abundant granular, 'foamy' cytoplasm. Epulis gaint cells are not present. Blood pigment is noted in patches. This tumor is considered to be of low-grade malignancy and is not likely to metastasize. It will not recur locally if completely removed. Pathological diagnosis: Xanthoma of the leg, origin not determined."

Recovery following operation was uneventful. Roentgenograms showed that the bony defect had practically filled in with new-formed bone at the end of a year. No recrudescence of symptoms was experienced. Last seen on July 26, 1943, the patient reported himself as entirely free of symptoms and roentgenograms of the same date disclosed no evidence of the tumor, only slight increase of bony density at the level of the old lesion.

CASE 3.—*(Enchondroma).*—Mrs. E. F., a white woman, aged 42 years, married, housewife, gave a history of a swelling on the medial side of the right tibia which had existed for several years with gradual increase in size. There had been no pain at first but it began some eleven weeks before admission to St. Paul's Hospital. The pain had not been great. The patient had received an injury to the right ankle at the age of 6 years which had left her with a considerable valgus deformity, but her idea of a connection between that and the present trouble appeared rather far-fetched.

Examination disclosed a hard, bony swelling on the medial side of the right tibia beginning just proximal to the ankle joint and ranging proximally for about 2 inches. Roentgenograms disclosed an irregularly oval area of bone destruction within the tibial shaft, beginning .5 inch proximal to the ankle joint and extending proximally for 2.5 inches. It was 1.75 inches wide at its greatest width. The surrounding bony wall was rough and irregular with a bulging medially where it appeared quite thin.

Operation was done May 7, 1932. Exposed subperiosteally, the cortical bone was removed with osteotome for wide exposure. The tumor tissue was found to be whitish in color and semisoft in consistency. Thorough curettage was done. A small area where the bone had been eroded down to the periosteum was found near the proximal end of the cavity on its posteromedial aspect. The marrow cavity was found to be sealed over with a bony bridge at the proximal pole of the tumor cavity. A pocket measuring .125 inch in diameter was found along the lateral wall of the cavity, covered over by a thin bony partition which was removed. The

pocket was elongated proximally for .5 inch beyond the limiting bony bridge across the marrow. It was thoroughly reamed out. Phenol was used as a cautery followed with alcohol. A bone graft was taken from the tibia nearer the knee and this was used to help fill the cavity left after removal of the tumor. The cortical bone removed for exposure of the tumor was also used for the same purpose, care being taken that all tumor was removed and phenol applied to its inner surface. The thermocautery was applied to the space from which the graft was removed for the dual purpose of control of a

FIG. 3a. Anteroposterior and lateral views of the ankle region, chondroma (Case 3).
b. Views of same area nearly thirteen years after operation.

bleeding vessel and prevention of possible tumor cell implantation. A "rubber dam" was used as a drain. The patient was discharged from the hospital on May 14, wearing a leg brace.

The pathological examination was made by Dr. J. L. Goforth who reported as follows:

"Specimen consists of a large quantity of friable, cream-colored tissue. . . . Sections through several pieces of tumor all show the same general histologic picture. There exists a fairly homogeneous, acellular, hyaline matrix which shows rough fibrillation in places, stains pinkish-blue, and resembles imperfectly formed or immature cartilage. Throughout this matrix, scattered cells are seen. Sometimes they appear as varying sized and shaped stellate cells irregularly placed in the matrix; again they occur in pairs in small pockets in the tumor matrix with their opposed surfaces flattened. These latter cells have the appearance of cartilage cells. In a few places small, irregular patches of connective tissue which tend to trabeculate the tumor to some extent are seen. Scattered mononuclear cells, lymphocytes chiefly, and blood vessels are seen in these areas. Pathological diagnosis: Primary chondroma of lower end of right tibia (enchondroma), locally destructive and capable of recurrence."

Dr. Goforth further commented:

"It is relatively acellular and apparently has grown very slowly by the process of peripheral expansion. . . . In its present form, the tumor is not likely to metastasize. It is quite likely to recur locally in event it has been incompletely removed and a recurrence is likely to grow more aggressively than the original tumor. Also true malignant behavior may be assumed in event of a recurrence."

This patient was seen from time to time for several years and roentgenograms disclosed no evidence of return of the tumor. The cavity gradually filled in with new-formed bone. The family physician reported her as well on March 6, 1945, and roentgenograms of that date showed no evidence of recurrence, only some areas of uneven density, probably the result of the bone grafts.

CASE 4.—*(Bone Cyst)*.—Mrs. L. G., a Mexican woman, aged 28 years, maid, gave a history of a mild aching type of pain in the proximal half of the left arm which had followed accidental injury several years before admission to St. Paul's Clinic. Examination disclosed local tenderness with complaint of pain upon full abduction of the left arm. Roentgenograms made twenty-two months before operation showed that the left humerus was the seat of a destructive lesion extending from a point within the head .5 inch beyond its articular surface, distally into the diaphysis for 6.5 inches. The rarefaction was inside the cortex, which was markedly thinned-out in appearance. One-half inch proximal to the distal limits of this internal erosion, the cortex

FIG. 4a. Views a few days prior to operation of the lesion in Case 4 diagnosed pathologically as bone cyst.
b. Same humerus seven years after operation.

bulged in the direction of the axilla for .5 inch and over a length of 2 inches. Within this bulge as well as in the capital portion of the lesion, thin bony septae appeared. Roentgenograms of a few days prior to operation disclosed much less trabeculation within the lesion, which occupied the same area as before.

Operation was done at St. Paul's Hospital on May 5, 1938. Incision was made over the proximal part

of the left arm by "splitting the anterior margin of the deltoid muscle." This was extended distally as far as the lesion reached. A slit-like opening was made in the cortex of the humerus to uncover the

FIG. 5. Anteroposterior view of tumor of femur. Marked destructiveness of lesion is quite apparent (Case 5).

diseased area. A soft, pulpy tissue was curetted from within the shaft and head of the bone followed by the use of phenol as a cautery neutralized with alcohol. The wound was closed without drainage.

Dr. Goforth examined the tissue removed and reported as follows:

"Several sections made through the different pieces of soft tissue all show fibroblastic tissue representing various stages of repair. Frequently patches of totally degenerated hemorrhagic material are noted. None of the sections reveals a picture characteristic of giant cell tumor of bone, and likewise the general picture is not that of osteitis fibrosa. The sections reveal no evidences of neoplasia or of a specific infection of any kind. From the histologic viewpoint the condition is regarded as a bone cyst which contains degenerated and regenerated soft tissue elements. Now that the cyst is broken, repair activity should continue with the osteitis fibrosa picture predominating. Pathologic diagnosis: Benign bone cyst, left humerus."

This patient went on to recovery and has been well ever since. Last seen on May 24, 1945, she reported herself as quite well. Roentgenograms made on that date disclosed the cloudiness of increased density of bone in the diaphysis with no evidence of recurrence of the lesion. Within the head of the humerus the density was the same medially, but laterally a small area of decreased density was noted.

CASE 5—*(Sarcoma)*.—C. T. W., a white man of Danish birth, aged 68 years, married, gave a history of a fall thirteen months before admission to Parkland Hospital. The region of the left knee joint was injured but the symptoms were mild and he thought he had recovered after two or three months. About eleven months after injury, he began to have pain and swelling, the pain being greater when he walked. Those symptoms had gradually increased and the patient described the pain as throbbing in character. Examination disclosed marked swelling of the distal part of the left thigh and knee joint region; the swelling was described as somewhat "indurated." Tenderness was not great but flexion of the joint was quite limited.

The roentgenograms disclosed a markedly destructive lesion of the left femur involving the distal 6 inches of the diaphysis. Only a thin rim of cortical bone remained in but a few places and this appeared to be pushed out peripherally to a width of 4 inches by the expanding lesion within. Dr. P. E. Wigby, the radiologist, described it as of "a cystic appearance" and thought the tumor to be an osteogenic sarcoma.

Material for biopsy was removed with the thermocautery and two pathologists, Drs. C. B. Sanders and J. L. Goforth, examined it independently, each giving a diagnosis of gaint cell tumor.

The problem that now posed itself was how best to dispose of this tumor. Here was an elderly but vigorous man. It was explained to him that if the tumor could be removed completely and followed with a heavy bone graft, he would probably recover after a prolonged convalescence. As an alternative, amputation offered the hope of quick recovery, provided that he could survive such a procedure at his advanced age. Without a moment's hesitation, he said: "Take it off."

Amputation at the middle of the thigh was done on July 30, 1935. Most of the operation was done with local use of novocaine solution, a little gas being given while the femur was sawed through. In spite of these precautions, he was in only fair condition at the end of the operation and stimulation was required for a few days. Thereafter recovery was satisfactory.

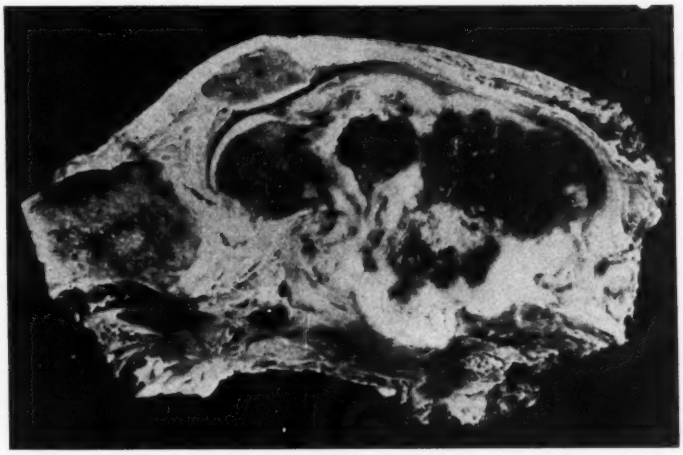

FIG. 6. Photograph of frozen and bisected distal end of femur and knee region after amputation (Case 5).

Both pathologists made studies of the tumor after amputation and confirmed their previous diagnosis

of giant cell tumor. The report of Dr. Sanders follows:

"Gross: Left leg is amputated in mid-portion of the femur. There is a rounded tumor mass just proximal to the knee joint which has completely destroyed the shaft of the distal half of the femur. The tumor is well circumscribed and there is a definite line of demarcation between tumor and surrounding muscle and soft tissue. The tumor is extremely cystic, containing cavities measuring from 1 cm. to 8 cm. in diameter which are filled with a necrotic yellow exudate. There are some spicules of bone scattered throughout tumor. There is a large amount of hemorrhage and hyperemia in the tumor mass. Portions of tumor are firm and gray and show hyaline change. Microscopic: The tumor consists of interlacing bands of spindle cells in which there are many gaint cells containing from eight to twenty nuclei. There is extensive degeneration and necrosis in the tumor. There are numerous small areas of normal appearing bone scattered throughout the tumor. There is no definite evidence of malignancy. Pathological diagnosis: Benign giant cell tumor of distal portion of the femur."

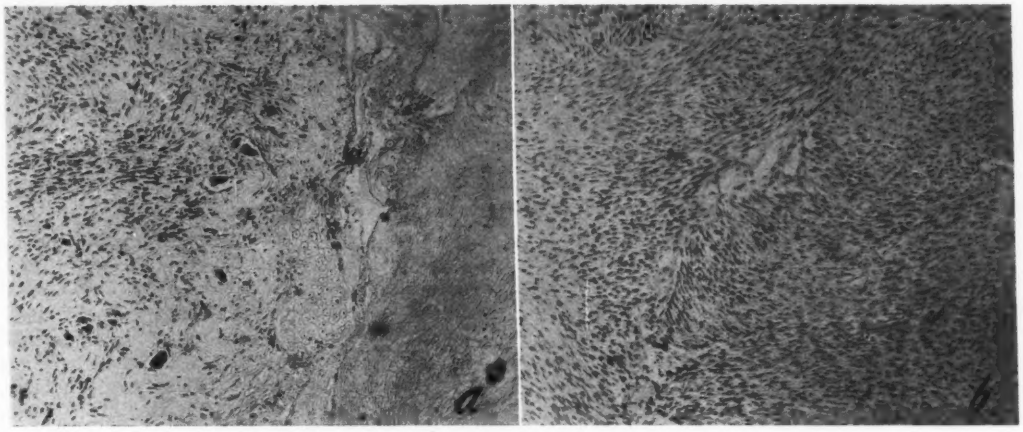

FIG. 7*a*. Low power view showing fibroblastic stroma in which scattered epulis giant cells are located (Case 5).
b. Low power view showing dense cellular fibroblastic tissue composed of spindle shaped fibroblasts. Scattered mitotic figures are noted in these cells. (Case 5).

The radiologist insisted that the tumor was malignant and sections of it were sent to Dr. J. C. Bloodgood. Since he was on vacation his associate, Dr. L. C. Cohn, acted for him. The latter reported that he was unable to give a definite diagnosis but suggested three possible ones, osteitis fibrosa, giant cell tumor, or sarcoma. He further commented: "This is not a simple case for diagnosis. I can't be certain whether this is a variant of a giant cell tumor, in which there are no areas in which the giant cells are numerous enough to say they predominate, or whether it is an area of osteitis fibrosa, or a low grade osteogenic sarcoma. Sixty-eight is not the age for osteitis fibrosa. The predominance in some places of spindle cell stroma also suggests the possibility of a nerve sheath tumor, with secondary involvement of bone." Dr. Cohn was quite interested in the outcome and kept in touch with us, finally asking for the roentgenograms. He studied these in connection with the sections in February, 1938, and reported: "The tumor is essentially composed of spindle cells in a myxomatous stroma and I now look upon this tumor as a neurogenic sarcoma secondarily involving the bone."

This case was reported before the Dallas County Medical Society in 1943. Present was Col. Bradley L. Coley, M. C., A. U. S., who became interested and sent some microscopic sections as well as roentgenograms to Dr. Fred W. Stewart, of New York City. The latter's diagnosis as relayed to me by Dr. Coley was that of fibrosarcoma.

The patient remained well until his sudden death on February 12, 1944. He had been seen from time to time and occasional roentgenograms were made of the amputation stump and chest but no evidence of recurrence or of metastasis was noted up to the final roentgenograms made on July 27, 1943. He had lived for over eight and one-half years after amputation. This case was most interesting and considerable difference of opinion among the pathologists, not to mention the radiologist, has been noted.

1333 Medical Arts Building.

UNRRA EMERGENCY MEDICAL STOCKPILES

A stockpile of vaccines and biologicals, as well as water purifying equipment, is being built up in London by the United Nations Relief and Rehabilitation Administration to be ready to combat possible outbreaks of epidemics, the agency's Washington headquarters has announced.

The reserve stock of supplies is being acquired from sources both in the United States and the United Kingdom.

Arrangements have been made for packaging the supplies so that they can be shipped by air and thus can be flown immediately to the scene of any outbreak of disease in countries where the agency operates. Because London is close to most of these countries, the stockpile is stored there.

Included among the supplies are diphtheria antitoxin, toxoid, and Schick test toxin; smallpox vaccine; tetanus antitoxin; and vaccines for use against plague, typhus, and gas gangrene.

The purifying equipment includes twenty-four portable gasoline engines with hypochlorinating units capable of processing fifty gallons of water per minute for drinking and hospital purposes as well as a dozen other purifying outfits. All these units also are capable of shipment by air.

THE MANAGEMENT OF NONSPECIFIC URINARY TRACT INFECTIONS

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The management of urogenital infections should be based upon knowledge of a few well recognized precepts. Departure from these fundamentals usually leads to failure.

Such general measures as adequate nourishment and rest, transfusions, necessary sedation, and other procedures that contribute to the comfort and improve the general well-being of the patient are utilized in both the preventive and active phases of the treatment.

Timely prophylaxis often minimizes the need for active therapy. One should exert every effort to avoid or correct obvious predisposing factors.

The principal active therapeutic measures may be grouped under four major headings—the four "D's": diagnosis; drainage; dilution; drugs.

DIAGNOSIS

Accuracy and completeness in diagnosis exerts a profound influence upon the response of the infection to the various procedures which may be employed to control it.

It is elementary to comment upon the importance of a carefully elicited history. Those who are well acquainted with the vagaries of urinary symptoms, the "silence" of some serious pathologic processes, the frequent reference of symptoms to other systems (notably gastro-intestinal), and the insidious progress of some lesions realize the ease with which pertinent data may be glossed over or omitted by the patient and its significance misinterpreted by the physician. Careful questioning and review should not be neglected.

Although urologic diagnostic technic has become highly specialized, much must first be learned through a simple routine physical examination. This includes a survey of the patient's general physical status as well as local urologic study. Debility, malnutrition, anemia, diabetes, serious cardio-renal disorders, and other general diseases may exert considerable effect upon prognosis, progress, and therapeutic endeavor in urogenital infections. A general estimate of the type and extent of involvement of the urogenital system is essential to sound judgment in selection of diagnostic and therapeutic measures. For example, instrumentation in the face of acute urinary infections is contraindicated until proved unavoidable because of the danger of inducing a generalized bacteremia or septicemia. Furthermore, many chronic infections cannot be eradicated or controlled until certain accessory factors such as obstruction, trauma, foreign bodies, and bacterial or chemical toxins are detected and removed.

The laboratory is a valuable diagnostic ally. Much may be learned from gross inspection of the urine, particularly if it is voided continuously into two clean glass containers and observed with the "mind's eye" trained upon the pathogenetic probabilities. The urine specimen should be collected in as aseptic manner as possible. For practical purposes the second portion of a voided specimen in the male is suitable, but in females a catheterized specimen is almost essential. The container should be sterile if cultures are to be done and examination must be performed while the urine is fresh.

Bacteriological study of the urinary sediment is routine. Stain by the Gram method is suitable for all practical purposes, since it will determine whether the infecting organisms are predominantly bacillary or coccal and gram-negative or positive. Cultures may be resorted to when indicated.

The status of renal function should be appraised. The phenolsulphonphthalein excretion test and estimation of blood nitrogen retention seem to be the most uniformly dependable at the present time.

Urography is an important part of the detailed study of the urinary tract. Excretory urograms are commonly used; however, because of their inherent limitations, it is often expeditious, unless contraindicated, to proceed initially with retrograde urograms. In this manner one may at once obtain visualization of the urethra and bladder, study differential renal excretory function, explore the ureters with catheters, obtain separate specimens of urine from each kidney pelvis for examination, and secure a more clear cut urographic delineation of the urinary tract by retrograde injection of radio-opaque media.

Cystoscopic and similar instrumental examinations are best employed by the trained cystoscopist. Accurate interpretation of endoscopic findings is dependent upon judgment gained through relatively extensive guided experience.

DRAINAGE

It is universally recognized that urinary stasis definitely encourages the occurrence or persistence of urinary infection. Promotion of drainage in a suitable manner therefore

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is a logical requirement in control of such infections.

The presence and degree of obstruction must be evaluated. Each case must be judged and handled individually, but brief mention of some of the methods is timely.

Meatotomy is a simple procedure employed too seldom. We have observed frequent instances in which a stubbornly resistant urethritis or prostatitis of specific or nonspecific origin cleared up promptly following adequate meatotomy.

Judicious urethral dilation with sounds and bougies is practically a tradition. It may be used selectively to promote drainage from urethral glands, the prostate, and seminal vesicles. Legitimate increase in the caliber of urethral stricture also enhances expulsion of urine from the bladder and reduces adverse effect on the prostate. Rarely now do urethral strictures require internal or external urethrotomy.

Drainage of the urinary bladder pending the surgical correction of vesical neck obstructive lesions is ordinarily secured either by indwelling urethral catheter or suprapubic cystostomy. We most frequently employ Foley type retention catheters of small diameter (F 16 to 18). They are better tolerated during introduction, sojourn, and removal than other types. In some instances it is necessary to hold other types of catheters in place with strips of adhesive tape. Our cystostomies are performed by the trocar and canula technic and the catheter which is threaded through the canula is secured by loops of silk through the skin until it can be replaced by a Foley catheter. Interval catheterization is advocated by some. Indwelling catheters draining continuously through a closed system have proved more generally satisfactory in our hands. Aseptic principles must be observed and the catheter changed weekly if drainage is prolonged.

Postoperative urinary retention may provide a nucleus for infection. We have had no success yet with parasympathetic stimulating drugs. Careful catheterization still seems to be the treatment of choice. One must observe strict asepsis and avoid trauma of over-distention or rough instrumentation. Following extensive rectal or pelvic surgical procedures, the use of a small indwelling Foley retention catheter attached to a closed irrigation system for a variable period of time has become a routine.

Drainage of the ureters and kidney pelves is most commonly accomplished via ureteral catheters. Periodic dilatation sometimes will suffice. In most instances when their retention is necessary or desirable our practice is to leave them in place for seventy-two hours and replace them later if required. Pyelostomy and nephrostomy are occasionally necessary. Extrinsic obstructions, such as aberrant renal arteries, adhesive bands, various intra-abdominal tumors, and kinks due to renal ptosis, all require surgical intervention.

Frank suppurative lesions that are enclosed or drained inadequately require ample surgical incision and drainage. Occasionally complete removal of an organ so affected is the most conservative procedure.

DILUTION

Dilution of bacterial toxins and relative reduction in the number of bacteria is obtained by a large fluid intake and augmented urinary output. If oral intake is insufficient, it must be supplemented or replaced by suitable parenteral administration.

The body defensive mechanisms are better able to combat and overcome the infection when the bacterial count is thus relatively reduced. Helmholz has shown that bacteria may be susceptible to certain chemotherapy when their concentration is low but when present in overwhelming numbers no bactericidal effect is discernible.[3]

DRUGS

The intelligent administration of drugs to combat urogenital infections now requires identification of the causative organisms, estimation of the degree and extent of infection, appraisal of kidney function, detection of any accessory complicating factors and determination of idiosyncracies. Recent knowledge emphasizes selective action in chemotherapy.

Before sulfonamides were added in 1936 to the now imposing therapeutic armamentarium, these factors were of relatively little importance. A host of remedies was used prior to this time. Alkalies and acidifying agents were given, depending upon the reaction of the urine. Methenamine held the spotlight for many years and it is still employed in selected instances.

In 1931 the ketogenic diet was advocated and utilized for production of bactericidal quantities of betaoxybutyric acid in the urine. It has yielded to mandelic acid, which Rosenheim introduced in 1935, as an effective inhibitor of urinary bacterial growth because mandelic acid is more available, more economic, and more pleasant to take.[4]

We administer calcium mandelate tablets in sufficient dosage to secure a urinary *p*H 5-5.5. The average dose for adults is about 3 Gm. every six hours, but experience has taught that this must be varied according

to individual tolerance and the hydrogen ion concentration of the freshly voided urine as determined by frequent testing with nitrazene paper. Sharp restriction of fluids may be necessary. Gastro-intestinal irritation and hematuria may be unpleasant side effects. Its bactericidal efficacy is nullified by insufficient excretion due to marked impairment of renal function or by some strongly alkaline infections. Carroll has recommended the intravenous administration of specially prepared sodium mandelate solution to avoid gastric irritation.[2]

The sulfonamides are the most universally useful urinary bactericides. Clinical experience indicates that sulfathiazole is the best of the sulfa-derivatives for this purpose since it controls or prevents most simple urinary infections except those caused by Streptococcus faecalis. Mandelic acid therapy is ordinarily effective for the latter. Relatively small doses are employed both prophylactically and actively, ranging from 0.5 Gm. every four to six hours to 1.0 Gm. every six hours. Adequate fluid intake is insured by insisting that the patient "drink a gallon of liquid a day" or by supplementing with intravenous fluids. Alkalies are given to minimize the danger of excessive acetylization with crystallinuria.

Since the response is not always uniform, it may be necessary to change to sulfadiazine, sulfamerazine, or sulfacetamide in attempting control of an infection. We have found sulfacetamide particularly useful in pyelitis of pregnancy.

Succinylsulfathiazole has proved almost indispensable in preparation for ureterointestinal implantation and for control of infection following it. Postoperative febrile reaction is now rare. Dosage is calculated on the basis of .25 Gm. per kilogram body weight per day.

Unfortunately the sulfonamides are not without danger since some patients exhibit definite idiosyncracy to these drugs, and three types of extremely serious renal damage are recognized: (1) frank obstruction by crystals; (2) widespread focal necrosis including the kidney; and (3) acute toxic nephritis.[8] These dangers are minimized by small doses plus adequate fluid intake plus alkalinization. Routine estimation of blood levels is not considered necessary in the program outlined above.

In some instances of pure staphylococcal infection which resisted treatment by other methods, we have observed dramatic response to the intravenous injection of small doses of neoarsphenamine (0.3-0.4 Gm.) every five days for eight doses. Arsenicals also seem to be more or less specific for "true infective abacterial pyuria."[1, 7]

The use of various instillations and irrigations is of doubtful value. The chief benefit that is derived from the various solutions seems to be mechanical cleansing and perhaps reduction of the intensity of the infection by dilution. Stone dissolving solution "G" developed by Suby, Suby, and Albright is nonirritating and acid in reaction. It may be employed effectively in certain alkaline type infections,[9] notably alkaline encrusted cystitis.

Pyridium and serenium seem to exert mild antiseptic action in the urine and often prove soothing to the inflamed tissues. We usually give two tablets three times daily. The patient should be forewarned of the color change that will occur in the urine.

Penicillin is such a recent addition that sufficient clinical experience has not accumulated for true evaluation. The optimum in dosage, mode, route, and frequency of adminisitration is not yet established. A few toxic reactions such as urticaria, vesicular eruptions, abdominal cramps and localized thrombophlebitis have been reported, but no serious side effects have been demonstrated.[6]

The dramatic effectiveness in rapid cure of gonorrhea is well known. In nonspecific urethritis, significant improvement is not the rule, and physicians must still rely upon periodic massage and urethral sounding as the fundamental basis of treatment.

Reported susceptibility of Staphylococcus aureus, Streptococcus faecalis, and Proteus ammoniae offers therapeutic promise. Our endeavors to control urinary infections with penicillin have been disappointing. Gram-negative bacillary invaders are quite resistant.[5, 6]

The intramuscular administration of relatively large amounts of penicillin in frequent divided doses pre- and postoperatively has in most instances simplified the handling of serious staphylococcal suppurative lesions in the kidney and perinephric space. Reports indicate a decided reduction in morbidity and mortality and less need for radical surgical procedures. We are not yet convinced of the advisability of neglecting fundamental surgical drainage, however.

The early reports regarding streptomycin are encouraging. This is another of the antibiotics produced by soil actinomycetes. Experimental evidence to date indicates that it may be of practical usefulness in control of infections caused by various gram-positive and gram-negative organisms and may even be inhibitive to human strains of Mycobacterium tuberculosis.[10, 11]

CONCLUSION

The advance in development of agents for control of urogenital infections has been rapid during the past ten years. Neglect of fundamentals usually results in failure. The four "D's" are diagnosis, drainage, dilution, and drugs. Each has a place in the intelligent management of urinary tract infections.

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HOSPITALIZED VETERANS OFFERED COURSES

Arrangements to provide educational opportunities through the United States Armed Forces Institute for personnel in veterans hospitals has been announced by the War Department.

Some ninety-odd correspondence and self-teaching courses prepared by the USAFI will be made available to hospitalized veterans in accordance with arrangements made with the Veterans Administration. The courses will be followed up by corresponding end-of-course tests such as are regularly given to personnel on active duty.

The Veterans Administration has planned that lessons and tests submitted will be graded by the University of Wisconsin, which now grades lessons submitted by military personnel. Registration of courses, grading of lessons, administration and grading of tests, and the recording of course completions for possible accreditation purposes will be the complete responsibility of the Medical Rehabilitation Service of the Veterans Administration. The Army supplies at one time bulk shipments to named veterans hospitals.

Generally, personnel in veterans hospitals have been unable to participate in educational programs. Such personnel could not enroll for USAFI services, which are limited to military personnel on active duty or to certain veterans who had enrolled for courses prior to discharge. On the other hand, veterans could not take advantage of educational programs provided for them until they had been separated from the veterans hospitals. Therefore, this new arrangement is limited to hospitalized veterans. —S. G. O. Notes, March 31, 1946.

THE USE AND ABUSE OF SULFONAMIDES IN DERMATOLOGIC CONDITIONS

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Since the sulfonamides have been introduced into medicine many lives have been saved, and the course of many illnesses shortened. They form a valuable addition to our therapeutic armamentarium. The indications for their use are well described, the method of their employment is well standardized, and their limitations are well known. The purpose of this discussion is not to depreciate their value, but to plead for their conservative use and to warn against their untoward effects, particularly with reference to prevention of the eczematous reactions.

There are several dermatologic conditions which call for the employment of one or the other of these products. In some of these conditions greater dependence is placed upon the drug than upon any other procedure used concomitantly; in others, the use of the drug is as an adjuvant, or it may be discretionary.

There is no skin condition in which the local use of sulfonamides for a period longer than four days is justified. This will be elaborated upon later, and furnishes the theme of this paper.

ADVANTAGES OF THE DRUGS

The conditions in which the use of the drugs are of definite value comprise certain nonsyphilitic venereal diseases and acute pyogenic infections. Of the venereal diseases, lymphopathia (lymphogranuloma) venereum and chancroid call for their use. The results in each are of course best when the drugs are used in the early stages. In a series of cases of lymphogranuloma treated by Kennedy and others,[6] reported in 1941, the acute cases were cured in an average of thirty-four days, and the chronic cases in an average of forty-eight days. F. C. Combes, Canizares, and Landy[3] in a study of 97 cases of chancroid treated with sulfathiazole estimated the time for cure of simple cases as five days and for those complicated with buboes as of seven days. The average amount of the drug required was 21 Gm. for the simple cases and 29 Gm. for the complicated. It has been reported that a positive Frei test became negative after treatment with the drug, thus indicating a specific effect upon the infection. Gonorrhea is preferably treated by penicillin; however, in the rare cases of penicillin-resistant organisms sulfonamides occasionally have to be resorted to.

Sulfonamides find a definite place of use-

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fulness in the following acute pyogenic infections: erysipelas, widespread impetigo, cellulitis accompanying inflammatory dermatophytosis, furuncles, lymphangitis, early hidrosadenitis, and in some carbuncles. For all of these, penicillin serves an equally good purpose, but in many instances the use of sulfonamides is the more practical measure because of technical difficulties involved in the administration and expense of penicillin. Erythema nodosum responds well to sulfadiazine if there is a definite focus of infection. (The tendency of sulfathiazole to produce erythemanodosum-like lesions should not be overlooked.) Erythema scarlatiniforme responds only if there is a definite focus of infection, which must be eradicated to prevent future recurrences.

Certain chronic infections of the skin are benefitted occasionally but rarely cured only by sulfonamides. Of these, sycosis barbae is occasionally cured by short courses. The drugs are of distinct value in anthrax, actinomycosis, and chronic axillary abscesses in combination with penicillin therapy.

Sulfonamides are sometimes used in other skin conditions which are of unknown etiology: notably, pemphigus, lupus erythematosus, and dermatitis herpetiformis. They have been of doubtful benefit in any form of pemphigus, with the exception of those forms with attendant sepsis. They are of no value in the chronic discoid type of lupus erythematosus, and are reported to help only about 5 per cent of the acute disseminated types.[13]

UNTOWARD EFFECTS

The untoward effects of the sulfonamides may vary from mild rashes of the skin to toxemia. The eruptions may be morbilliform, scarlatiniform, purpuric, varioliform, urticarial, papular, vesicular bullous, or nodular. There may be a fixed eruption or exfoliative dermatitis. A photosensitization may be induced by the drugs, but does not usually remain chronic. Stomatitis may be caused. The reactions usually express themselves on the fifth to the ninth day, but may occur from the first to the thirtieth day of administration. The general toxic symptoms may be fever, acute hemolytic anemia, hepatitis, leukopenia, with granulocytopenia, acute agranulocytosis, hematuria, anuria, ocular and auditory disturbances, and rarely psychoses.

Increasing numbers of sulfonamide dermatitides following the local use of the drug in an ointment are being seen. Most of the cases follow sulfathiazole ointment, and the incubation period for the sensitization dermatitis varies from twenty-four hours to a week after initiating the ointment. Very few cases are seen following the use of the drug in either a paste or powder. The ointments commonly used are composed of a water-soluble base that softens the epidermis and *increases permeability of the skin. Practically all cases in which a sensitization dermatitis develops are ones in which the primary dermatitis was of an allergic nature, or exudative.* This fact corroborates the idea which is commonly held that the reactions in epidermal cells are intimately concerned with the beginning of an allergic state.

In the past few years the literature has contained increasing accounts of and warnings against setting up a sensitization state against the drugs by the indiscriminate use of them. Most of the accounts refer particularly to sulfathiazole, but the warnings are directed against all of the sulfonamides. Barber[1] has stated:

> "Sulfonamides are effective in certain skin diseases, but they should not be used indiscriminately for any condition. Both methods of application demand the most careful supervision owing to the risk of allergic hypersensitiveness of the skin and other tissues and of serious toxic effects on the liver, kidneys, and hematopoietic system. It is important to distinguish between allergy with normal excretion of the drug and toxemia with drug retention. In the former, desensitization can be achieved by further administration; in the latter, it is imperative to discontinue treatment. The risk of allergic hypersensitiveness and of toxemia is minimized by prescribing the drugs orally for short periods only, three to seven days, and by applying them locally for not more than five days. It is questionable, if, as has been claimed, use of sulfonamides locally in superficial infective dermatoses, such as impetigo contagiosa, possesses any advantages over rational treatment with older and safer remedies. In any event, long-continued topical therapy with sulfonamides should never be permitted. The skin diseases for which oral administration of sulfonamides has been used with complete and partial success are acute and chronic infections of the skin with various micro-organisms and certain toxic eruptions due to acute or chronic infections elsewhere than in the skin. In some diseases the efficacy of one member of the drug group may be greater than that of the others. Thus sulfathiazole is more effective than sulfanilamide in staphylococcic infection, and sulfapyridine appears to be the drug of choice in dermatitis herpetiformis, pemphigus vulgaris and pemphigus vegetans."

Ormsby[9] stated that sulfathiazole sensitivity may be experienced in 5 per cent and reactions to sulfanilamide are seen in 2 per cent of cases treated.

Shaffer, Lentz, and McGuire[12] reported 4 cases in which sensitivity was induced by local therapy and elicited by oral medication. Allergic studies were performed in 3: Passive transfer tests, performed with the Prausnitz-Kustner technic, were positive to sulfathiazole in all 3 and gave positive delayed tuberculin type reactions, as well as the early

wheal reaction. A direct patch test performed on 1 patient was negative despite the fact that the eruption appeared to be a contact type dermatitis. Two patients showed one plus reaction to Urbach-Koenigstein passive transfer test.

These authors wrote:

"Sulfathiazole used as a local cutaneous application can cause a local dermatitis with or without a generalized disseminate eruption. Instead of presenting the usual appearance of dermatitis venenata, the eruption often manifests itself as an exacerbation of the eruption for which the patient is being treated. In two of the patients the sulfathiazole seemed to produce a flare-up of the original process locally with an 'id'-like generalization. The eruption in another case was basically a vesicular and pustular dermatitis. With sulfathiazole sensitization the activity of the process increased and subsequently bullous lesions appeared. With increasing sensitization the process became pemphigoid. The eruption precipitated by the ingestion of sulfathiazole tends to begin and to be most severe at the sites where the drug was applied locally, although it may later disseminate widely. Here again it may mimic the eruption for which the patient is being treated. The primary dermatitis may set the reaction type or pattern for the sulfathiazole eruption or sulfathiazole sensitization may manifest itself as a Herxheimer-like exacerbation of the original eruption. Pronounced pyogenic sensitivity, especially to the staphylococcus, may be important as a predisposing factor in many of these eruptions."

Others have reported a sensitization dermatitis which follows local application of the drug.[2, 4, 5, 7, 8, 10, 12] Livingood and Pillsbury's experience[7] was that in 12 patients in whom a sensitivity to sulfathiazole was induced by local application of the drug to diseased skin, evidence of the sensitivity appeared when the drug was later administered by mouth.

The following case reports are illustrative of those patients commonly seen who suddenly develop a generalized dermatitis after using a sulfonamide cream.

CASE REPORTS

CASE 1.—A woman, aged 35, was afflicted with pruritis ani. Her doctor prescribed sulfathiazole cream. This was at first soothing. Within twenty-four hours the perianal dermatitis became aggravated, and there developed an erythema multiforme scattered over the body, particularly over the chest, face, eyelids, and forearms. The secondary lesions on the face, forearms, and sides of the neck and eyelids became edematous, and all were intensely pruritic.

CASE 2.—A janitress, aged 55, developed a dermatitis of the forearms which was probably due to chemical cleansers. This was of about six weeks duration. Then a troublesome dermatitis of the legs from weeds began. Several different medications were used to no avail. Edema appeared about the ankles, then some exudation. The patient continued working and not giving the skin the rest it deserved. After the dermatitis of the legs had been present about two weeks, her physician prescribed sulfathiazole cream. Within two days an extensive dermatitis appeared all over the body and extremities and face. There was also edema and exudative dermatitis over the face, almost closing the eyelids, and a dyshidrotic eruption of the palms and soles. The dermatitis eventuated into a mild exfoliative one after the edematous stage, and there was left on the lower parts of the legs a chronic dermatitis which has required treatment, rest, and protective dressings since (for ten weeks).

CASE 3.—A patient with a chronic otitis externa had been under treatment for weeks with dusting into the ear canal equal parts of sulfanilamide and sulfathiazole. The dermatitis and pruritis extended out upon the external part of the ear. Rubbing aggravated the inflammation. It became reddened. Sulfathiazole ointment was then applied. Very shortly thereafter she was referred to me for treatment of an acute exacerbation of the dermatitis which became exudative and edematous over the ear and side of the neck.

Once started, a dermatitis due to sulfonamide sensitivity is extremely pruritic and recalcitrant to treatment. The degree of the toxicity may vary from only a moderate amount of skin involvement to an exfoliative dermatitis with purpuric and pemphigoid characteristics, and disturbance of the hematopoietic system, with rarely death.

The dangers of the possible development of this sensitization through external applications of sulfonamides must be carefully considered, particularly since at some later time the need for internal administration of these drugs may be life-saving, and a high degree of hypersensitivity may prevent their adequate use in serious general infections.

It is questionable whether local application of sulfonamide ointments is superior to any old measures such as 5 per cent ammoniated mercury ointment, sulfur and acid salicylic, resorcinol, or oxyquinoline; and because of the potential danger from their use it is recommended that sulfonamide ointments be used most cautiously, and if used at all, for a period of not more than five days, and that they never be used upon exudative or allergic dermatoses. My opinion is that the use of any of the sulfonamides in ointment form is not necessary, except in rare instances as in the cases of patients sensitive to other antiseptics, such as mercury.

These ointments, particularly sulfathiazole and sulfadiazine, are prepared by the commercial houses in a pleasing soft water-soluble base which is soothing, and at first appealing to the patient, and thus can serve as a trap to unsuspecting patients and physicians. The products are popular among the laity because all of the good virtues of the drugs have been advertised, but none of their hazards. We can expect to see more cases of sensitivity because of the loose way in which sulfonamides are dispensed, ordered, and used.

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SULFONAMIDE THERAPY OF VINCENT'S ANGINA

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The treatment of Vincent's angina has been a protracted and rather unsatisfactory procedure in the past. This report deals with the efficacy of sulfonamides in the therapy of this disorder.

The disease under discussion is an acute tonsillar infection which results frequently in deep ulceration and is associated with the presence of large numbers of Borrelia vincenti and fusiform bacilli. The term "Vincent's angina" is used for convenience only, since the etiological role of the abovementioned organisms is considered questionable by many.

In the past, treatment has consisted of the use of various antiseptic gargles, local application of such medications as iodine, chromic acid, potassium permanganate, gentian violet, merthiolate, and neoarsphenamine or mapharsen in glycerin, pastes of sodium perborate, and the parenteral use of the antisyphilitic arsenicals. That these modes of therapy have been somewhat less than satisfactory is attested to by their variety and number. The most widely favored, intravenous neoarsphenamine, is sometimes ineffective except after three or four injections. The use of this drug may even permit the development of the probably closely allied Vincent's stomatitis and gingivitis. This was observed by Ludwick[3] during the treatment of syphilis.

Priority in the use of sulfonamides for Vincent's angina belongs to Pelner,[5] who treated 1 case with azo-sulfanilamide, with a satisfactory result. Hirsch and Spingarn[1] treated 6 cases of ulcerative gingivitis and 2 cases of tonsillar infection with excellent responses. They continued treatment until the disappearance of the organisms from the lesions. One of their patients with tonsillar infection had infectious mononucleosis. Widespread attention was first drawn to the use of sulfonamides for Vincent's angina by the report of Linton,[2] who obtained prompt improvement in 4 patients. Recently Manson and Craig[4] reported on 48 cases. Their study demonstrated excellent results, all lesions having healed in ninety-six hours. The dosage employed was 12 to 18 Gm. of sulfathiazole in forty-eight to seventy-two hours. The medication was allowed to dissolve on the tongue.

Sixty-one cases of Vincent's angina from two Army Air Force hospitals were studied in making the present report. Of these, 41 were treated by the author and 20 by his associates. Soreness of the throat, usually unilateral, began

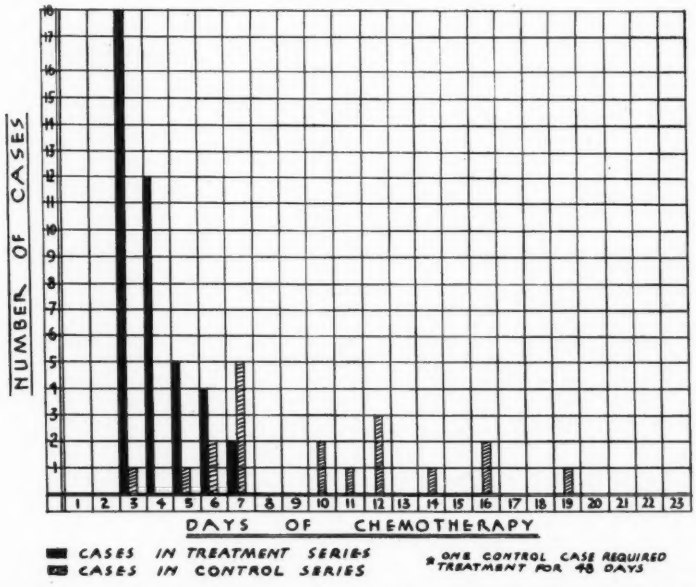
NUMBER OF CASES
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
DAYS OF CHEMOTHERAPY
CASES IN TREATMENT SERIES
CASES IN CONTROL SERIES
* ONE CONTROL CASE REQUIRED TREATMENT FOR 48 DAYS

FIG. 1. Chart showing graphically number of days of chemotherapy required for the control of Vincent's angina with sulfonamide therapy, compared with number of days required with other methods of therapy.

gradually in most cases, and constitutional symptoms were slight or absent. The affected tonsils were gray and not particularly congested. The extreme enlargement and marked redness seen in acute follicular tonsillitis of streptococcal or other origin was not observed. Thirty-two of the patients had frank deep tonsillar excavations; the others had ulceration which was detected only when the exudate was wiped away. Darkfield examination was made in several cases; none was positive for Treponema pallidum. The tonsillar lymph node draining the affected side was usually considerably enlarged, firm, rubbery, and only slightly tender.

Exudate was always abundant, sheetlike, and malodorous, and was gray or yellow. Stained smears were made in 55 cases, and were positive in 53. All the cases with negative or no smears had deep ulcers, and the other clinical criteria were fulfilled. Presence or absence of Vincent's organisms in a smear was never allowed to be the chief criterion in diagnosis. Blood counts and blood smears were made in 53 cases. Only 2 showed any considerable degree of polymorphonuclear leukocytosis, both unquestionable cases with deep ulcers, and only 1 a lymphocytosis. The latter was not regarded as infectious mononucleosis of the usual type, as there was no titer for a heterophile antibody on several determinations.

It was considered that the cases included in this study could be readily differentiated from tonsillar infections of other types. Several, diagnosed as Vincent's angina by other staff members, were discarded because they did not fulfill the above clinical criteria.

All 41 patients in the treatment series received at least 6 Gm. of sulfadiazine or sulfathiazole a day, the standard dose for maintenance of therapeutically adequate blood levels. A few patients who received smaller daily doses were included in the control series. The total doses varied from 12 to 38 Gm., the most usual being 20 Gm.

The treatment given in the 20 control cases included chromic acid and gentian violet applications, neoarsphenamine or mapharsen in glycerin locally, neoarphenamine or mapharsen intravenously, and vitamin supplements. Most of the patients in both groups received peroxide and bichloride mouth washes. The results of treatment in the 5 cases in which inadequate doses of sulfonamide were given did not compare favorably with the adequately treated cases.

All patients were retained in the hospital until the ulcer had healed, or until all but extremely small amounts of exudate had disappeared. Thus it is possible to express the results in terms of days of chemotherapy and days lost from duty.

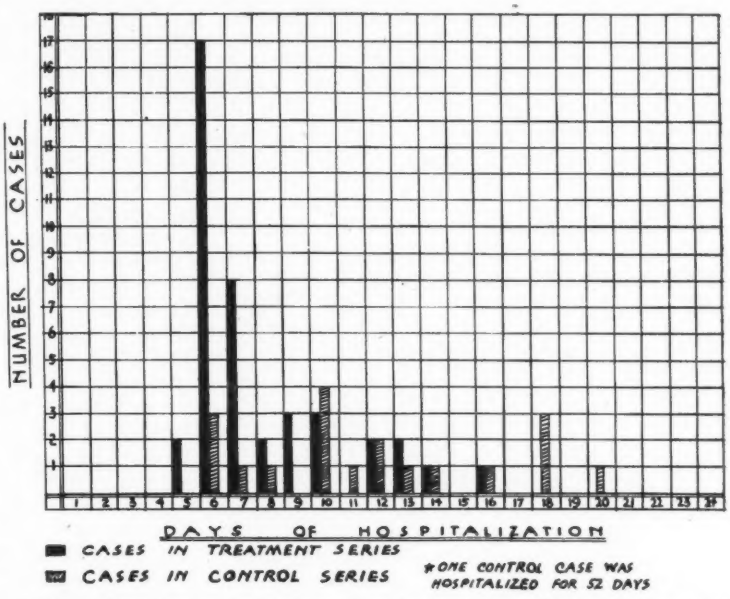
NUMBER OF CASES
DAYS OF HOSPITALIZATION
CASES IN TREATMENT SERIES
CASES IN CONTROL SERIES
*ONE CONTROL CASE WAS HOSPITALIZED FOR 52 DAYS

FIG. 2. Chart showing graphically period of hospitalization required for the control of Vincent's angina with sulfonamide therapy, compared with period of hospitalization required with other methods of therapy.

In 78 per cent of the adequately treated cases, the lesions were completely healed and the patients were ready for return to duty in less than ten days, while the corresponding figure for the control series was 25 per cent. Even more clearly demonstrating the greater value of sulfonamides are the following figures: 85 per cent of the treatment series received chemotherapy for five days or less, while only 10 per cent of the control series could be treated for five days or less. The results are analyzed in detail in figures 1 and 2. The superiority of adequate sulfonamide therapy was demonstrated also by the prompt diminution in soreness of the throat. Only rarely was there any discomfort after the first thirty-six hours of administration of the drug.

SUMMARY

1. Forty-one cases of Vincent's angina were treated with conventional doses of sulfonamides, and 20 received other modes of therapy.

2. Study of the results demonstrates the marked superiority of adequate sulfonamide therapy.

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OBSTETRICS IN THE POSTWAR YEARS

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Tonight it is my pleasant duty to welcome you to the sixteenth annual meeting of the Texas Association of Obstetricians and Gynecologists. Thanks to the wisdom of our Council during the past four years we have persisted in having our annual meetings. It was with some trepidation that we determined to have this meeting this year. However the trend of events has justified the wisdom of those who voted to have the annual meeting this year—come war or peace. The past few years have seen our ranks depleted by twenty-eight, which represents those of our number who are in the service. During these war years travel restrictions have made it very difficult to obtain speakers for our programs or to have good attendance of the members. We are happy indeed this year to have been so fortunate in concluding one of the most varied and excellent programs that we have had in the history of our organization, and I personally wish to offer thanks to every member who has contributed to this program and special gratitude to two of my friends who have come practically halfway across the continent to be with us today and tonight.

In casting about for a subject it occurred to me that we could do no better than to take stock of ourselves and to consider some of the problems that will be with us through the coming years. Consider for a moment the difference between the situation now and one year ago. Then it was a problem of holding the line, of keeping our diminished ranks intact and carrying on. That worry is now over, but we still have depleted ranks, no hopes of early replacements, and years of grinding labor ahead. Before taking up the case of the specialty of obstetrics let us consider the profession of medicine as a whole.

The A. M. A. Directory for 1942, compiled in late 1941, showed 180,496 physicians registered. The same year saw 1,245 physicians in the Army, 1,176 in the Navy—a total of 2,421 in the service. What were the figures at V J day? From these 180,000 physicians 60,000 had joined their comrades in the service. And how were these men chosen? To the everlasting credit of the A. M. A., these men were selected by local boards of Procurement and Assignment throughout the nation. By such country-wide selections the medical staffs of our Army and Navy were procured. The government looked to the A. M. A., and the A. M. A. delivered without employment of any draft. What a contrast to the nursing situation, a contrast caused by lack of vision and leadership in the nursing profession. When Von Runstedt's Battle of the Bulge was in full fury in December, 1944, the services awoke to the fact that there were far too few nurses. Then came frantic appeals, threats of a draft for nurses, and cold anger that any of our boys should suffer from lack of nursing service. The nurses could have been secured in the first place by the same system that furnished the doctors, but no one ever seemed to have thought of that.

The 120,000 physicians left at home we feel have held the line and have kept the faith. We take no credit for ourselves. Our patients have been forbearing and thoughtful of our extra burden; they have suffered inconvenience and delay with fortitude, for which we are grateful. There are no medals of honor for those on the home front. We expect none. To crown a man for doing his simple duty would be a crude gesture indeed.

With what armament have we fought these days? The heritage of medicine has been the accumulated experience of the race. Consider the record: of men wounded in battle, the lives of 95 per cent have been saved; the deaths from pneumonia (the Captain of the Men of Death) have been reduced 50 per cent; whooping cough (the chief killer under 5 years) has been prevented in 60 per cent of children; appendicitis shows a 98 per cent recovery record; cancer is controllable in 70 to 80 per cent of early cases—39,000 cancer recoveries officially recorded; diabetes has been brought under control; syphilis and gonorrhea are swiftly and surely treated. In our field, by intelligent prenatal care, greater comfort and fewer complications have occurred in pregnancy; easier labor has become a reality; the menopause a smooth unharried transition for 90 per cent of women. Such is the record; such the service rendered

President's address delivered before the Texas Association of Obstetricians and Gynecologists, San Antonio, November 17, 1945.

by our profession. Shall we not take pride in these achievements and agree with Sir William Osler when he said, "'Tis no idle challenge we physicians throw out to the world when we claim that our mission is one of the highest and noblest kind, not alone in curing disease but in educating the people in the laws of health, and in preventing the spread of plagues and pestilence"?

Our problems right now are both from within our ranks and from without.

1. The return of physicians to civilian status. This problem is not as easy as it sounds. Many of the men will desire new locations or refresher courses; a large percentage will be unable to resume their former strenuous labor—they will be casualties, both mental and physical. To date the loss of men who will never be able to return to full active civilian status cannot be accurately estimated.

2. America faces within the next five years the most appalling shortage of physicians it has ever faced. At the same time the population will have been increased by several millions. What are the causes for this shortage?

First is the usual average loss from death of 4,000 physicians annually.

Second is the reluctance or inability of the service to discharge physicians. The Army and Navy hospitals will be inadequately staffed if all physicians applying for discharge are granted release in the next two years. It is estimated the peace-time Navy will need 5,000 doctors, the Army 10,000. The Veterans Administration will require 15,000. This is 30,000 men. In six years, 1942-1948, 40,000 medical graduates will have been added to our ranks. In that time, at a death rate of 4,000 per year, 24,000 will have passed on, which leaves a residue of 16,000 to meet the need for 30,000 men, to say nothing of civilian needs. These are the figures of the committee, headed by Dr. Evarts A. Graham, of St. Louis, on postwar medical service, in a memorandum presented to Pres. Harry S. Truman in June, 1945. In the opinion of the committee failure to defer premedical students will mean writing off 5,000 physicians in the next three years, equivalent to depriving 100,000 hospitalized veterans, 1,000,000 soldiers or sailors, or 4,000,000 civilians of medical care.

This deficit has been aggravated by two short-sighted acts of the administration during the war. One was the failure, or rather the refusal, of the Selective Service System to defer students taking premedical studies. As a result there will be a period of four years or more in which only 4F's and women will be able to graduate as doctors of medicine. Even Britain during the blitz years, Britain whose citizens lost one-third of their homes and faced the imminent peril of invasion, persisted in keeping the premedical and medical students in the classrooms. The other act was a directive of the late Franklin D. Roosevelt, recently unearthed, which, late in 1944, compelled Army and Navy medical departments to assign a certain number of their officers to the Veterans Administration for use in their hospitals. This may keep thousands of physicians tied up in the service and chafing to get out to more active pursuits than keeping records. However, war controls are still on, and, unless Congress acts, no relief is in sight. The Ellender bill in Congress to defer premedical students received scant attention and no action. Indeed the medical profession has received little consideration of any sort from the administration. The application of the American Medical Association House of Delegates for a meeting in Chicago was summarily denied, but at the same time the 1,000 Club was smiled upon as its members trekked from the four corners to celebrate in Washington.

From these facts it appears that the civilian physician is faced with several more years of heavy duty before a new corps of medical graduates can bring help.

While the medical profession is thus faced with a definite thinning of the ranks of active physicians, it is also beset by another threat to its functions and efficiency; namely, the movement to institute some form of compulsory sickness insurance in the United States as expressed in the Murray-Wagner-Dingell bill. Such compulsory insurance leads to regimentation and totalitarianism. The late Samuel Gompers saw this threat back in 1916 when at a meeting of the A. F. of L. congress he declared, "Look over all the world where you will and see those governments where the features of compulsory benevolence have been established and you will find the initiative taken from the hearts of the people. Government power grows on that upon which it feeds. Give an emergency power and it at once tries to reach out for more. Its effectiveness depends on increasing power. For a mess of pottage under the pretense of compulsory social insurance, let us not voluntarily surrender the fundamental principles of freedom."

This, from a great labor champion of another day, in the face of the threat of present day compulsory sickness insurance championed by the C. I. O., makes us wonder whether the phrase in our constitution "to promote the general welfare" means to people fuller bellies, warmer clothes, better

shelter, rather than the more important values of freedom. I sometimes wonder if there are not too many people in our great land who would rather have security and bodily welfare than a guarantee of freedom. For the latter cause we have seen men suffer bodily privation and death at Valley Forge, at Iwo Jima and Okinawa, in the jungles and on the high seas. Did they suffer the pain in the flesh, the wounding, and the dying for freedom from want, disease, and hunger, or did they do it to preserve eternally the freedom of the spirit? To my mind it is high time that Americans take pause before changing basically what we so glibly talk of as the "American Way of Life."

Such is the sketchy over-all picture of medicine in the United States today. As a group whose specialty is that which supervises the most important single act of life; namely, the entrance into it, we are affected no little by all these problems and threats to our integrity as a profession.

First, we shall share with our fellow physicians the problem of scarcity of active men. I see no hope for relief from this situation under five years. To carry on the burden we have little but our own stamina and determination to aid us. Improvement in hospital facilities, better nursing service, which certainly is needed and not now out of reach, will help some, but the public will still have to be patient and forbearing for many years to come before our service can return to its former unhurried and unharried tempo. Grouping of obstetricians in clinics should be of some assistance, an arrangement whereby specialists may relieve one another at intervals will be of great help. Otherwise we shall have to hang on until a new generation of obstetricians is ready for service.

Second, such a situation threatens good obstetrical service because it gives little time or opportunity for study, mental exercise, and improvement of one's abilities. To my mind, outside of the physical wear and tear of the past few years, this has been the greatest loss we have suffered. As times are, it is too easy to keep in the same rut, use the same technic, and leave undone any investigation of newer and better methods and discoveries. Thus the war has made us almost perforce carry along with the status quo ante. Unless we petrify or fossilize, however, we must keep up with our studies, we must improve our technic, we must keep abreast of the new advances that come along. To do this we cannot hope for time for extended refresher courses, for postgraduate work, or extensive tours of medical centers. We will have to be content for awhile with our organizational meetings, county, state, and national, but above all with meetings of our special associations, such as this one, where in a short space of time we can learn new methods, discuss our problems, and refresh our spirits to carry on. In such meetings as these I see the means of carrying on our specialty as a living force until we shall have more time to study or take longer courses.

The solution of the present problem after all will be with the individual. The obstetrician like any other physician or like any other professional man faces a tremendous temptation at a certain period in his activities to rest upon his oars, to cash in on what he now knows or has already done, and to coast the rest of the way. If he falls prey to that temptation, he will not ride the crest of the wave, but will rust and rot. There is no more dangerous thing that can happen to a professional man than to stop looking forward.

This brings me to observe that while many of us have arrived at or have passed the meridian of life, we must not stop, we must not surrender the youthful outlook on life. Old age can be a lovely period, a crowning glory, or it can be a shrinking and a shrivelling of all that is best and noblest in man. Said Browning in Rabbi Ben Ezra:

> "Grow old along with me,
> The best is yet to be;
> The last of life for which the first was made."

However, someone has said, "It has been wisely pointed out that a man's age can be measured by the degree of pain he feels as he comes in contact with a new idea." Read the April 21, 1906, *Journal of the American Medical Association* and see how the profession looked upon the automobile with alarm and you will see the truth of this statement.

I hope in the light of that observation that none of us will ever grow old. Our usefulness to our fellow man depends upon how tenaciously we hold to the hope for newer and better things, both in our personal life and in our profession. And let me remind you that in keeping the forward-looking attitude, in looking for the newer and the better, we may stumble upon wonderful discoveries. In our daily practice and study who knows when we may grasp a new idea or a new discovery that may revolutionize our service and even the world? It is not too extravagant to expect this when we reflect upon some of the contributions that men have made to the race and under what circumstances they occurred.

Columbus, seeking the wealth of the Indies, discovered a New World; Coronado, looking for the seven fabled treasure cities of Cibolo

opened up a great Southwest; Stanley, searching for Livingston opened up the Dark Continent; in the scientific world Watt looked at the dancing of the kettle lid and the age of steam resulted; William Konrad Von Roentgen in 1895 studied the course of electricity through the vacuum tube, saw it cause a fluorescence on a nearby barium platinocyanide screen and gave us the roentgen ray; Becquerel puzzled over the fogging of a photographic plate resting in a drawer with some uranium and gave us the age of radio-activity and the split atom; Pasteur endeavoring to save France's wine industry from going sour discovered the existence of bacteria and almost discovered what Fleming actually did, when he attempted to find why a coworker's prize streptococcic cultures were not multiplying and found the answer in a mold, penicillin; Laennec watched children at play and invented the stethoscope; Auenbrugger observed vintners tapping their casks for fluid levels and evolved percussion; Domagk working to make Germany's dye industry supreme discovered the sulfa drugs; Semmelweiss noticed his maternity patients died when he went directly from an autopsy table to delivery room without washing his hands, thus starting the campaign to conquer puerperal fever; Christian Eijkman, in far off Sumatra, found his chickens sickened on polished rice and recovered on unpolished rice and gave us the vitamin era.

All of these men were going in one direction but found their jewel in a fortuitous bypath; but all were looking forward, were looking for something new. When they found it, accidentally, if you please, they were ready because, as Pasteur said, "In the field of investigation chance only favors the mind that is prepared." Nor are such discoveries, such pathways, beyond our ken. Sir James MacKenzie was a village doctor in Scotland and simply put down what he saw and what he thought. Yet no man has given to the world more knowledge about the human heart than he.

In closing, let me beseech you to retain the youthful outlook, to be ever on the alert for that which is newer and better. Have the vision of Ulysses as he assembled his men, already weary from wandering and searching and longing for home, and rallied them with these words:

"Death closes all, but something ere the end,
Some deed of nobler note, may yet be done.
'Tis not too late to seek a newer world;
Push off, and sitting well in order, smite the
sounding furrows.
For my purpose holds to sail beyond the sunset
And the baths of all the western stars
Before I die."

1312 Main Street.

GASTRO-INTESTINAL LYMPHOSARCOMA

DIAGNOSTIC AND THERAPEUTIC PROBLEMS

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Hodgkin's disease, lymphosarcoma, and lymphatic leukemia are the varieties of lymphoblastoma encountered, but the majority of the gastro-intestinal lesions are of the lymphosarcoma type. Primary involvement of the abdominal nodes is much more common than generally realized. A great many such cases are overlooked or mistaken for other disturbances. The tendency to invade different groups of lymph nodes in different parts of the body or to infiltrate any structure in which lymphatic tissue is normally present or even structures in which lymphoid tissue does not normally occur, makes it possible for this condition to simulate almost any disease. "Although this condition may arise primarily in the gastro-intestinal tract, many of the cases of so-called primary lymphosarcoma of the gastro-intestinal tract actually start in the retroperitoneal nodes and extend into the gastro-intestinal tract, at which site they present their primary symptoms. Due to the fact that in many instances it is very difficult for the surgeon to explore the retroperitoneal nodes, this involvement is not always manifested."[11]

The pathological and radiological aspects of this condition have been previously discussed somewhat in detail by the author[18] along with presentation of 7 proved cases (patients with pathological diagnosis, subjected to operation). These aspects will be only mentioned and more attention will be given to the clinical and therapeutic aspects of the disease and why it presents a clinical diagnostic problem. There will be presented 4 cases of lymphosarcoma which manifested themselves as gastro-intestinal lesions in which no involvement of the peripheral lymph nodes or other manifestations of generalized lymphoblastoma could be demonstrated clinically. Each of these cases presented an interesting diagnostic problem.

PATHOLOGIC MANIFESTATIONS

In the gastro-intestinal tract lymphosarcoma originates in the submucosa, and invades in each direction, involving on the one hand the mucosa and on the other the muscularis of the bowel.

Grossly, the lymphosarcoma may produce an intrinsic, extrinsic, or infiltrating type of lesion. The manifestations vary clinically depending on the type present. Ulceration,

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though not infrequent, is often absent; but when it does occur, it is thought to be due to necrosis from pressure and loss of blood supply rather than from malignant invasion proper.

The microscopic picture presents a diffuse growth of lymphoid cells which lie in reticular tissue. Two types are recognized: the small cell lymphosarcoma or malignant lymphocytoma, and the large cells or reticulum cell lymphosarcoma. According to Ewing the structure of lymphosarcoma is rather specific, the nuclei are compact or vesicular, always hyperchromatic with nucleoli which are inconspicuous. Balfour and McCann pointed out that experienced pathologists occasionally hesitate to make a positive diagnosis in cases which prove by their clinical course and subsequent pathologic examination to be sarcoma. They referred to the case of Freeman in which a specimen was sent to several pathologists of note who diagnosed it variously as carcinoma, lymphosarcoma, inflammatory tissue, and chronic granuloma.

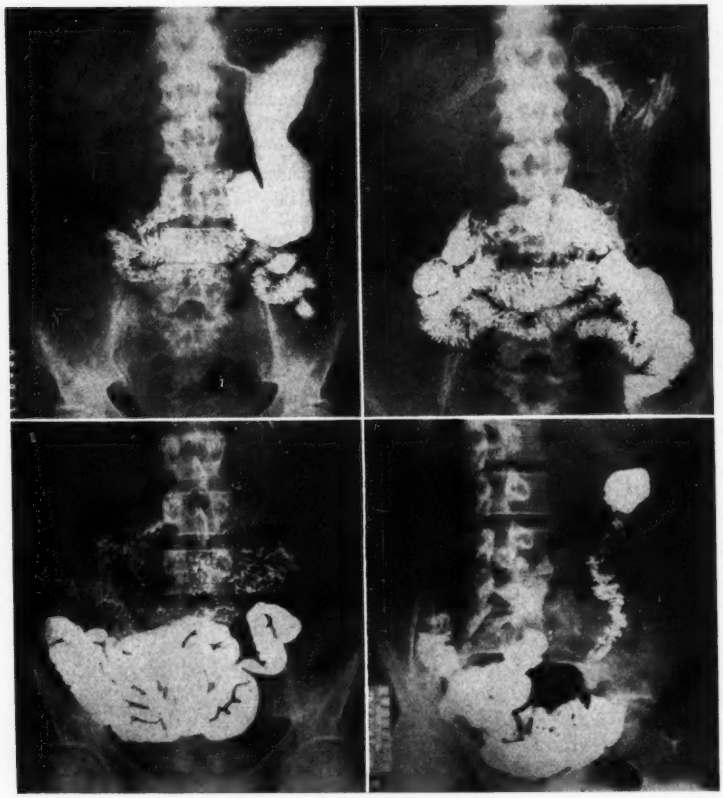

FIG. 1. Roentgenograms revealing a normal stomach and small bowel with head of barium meal in the cecum.

INCIDENCE

Primary lymphosarcoma of the gastrointestinal tract is relatively uncommon. Charache reported 404 cases of lymphosarcoma of the intestine in the literature. Several more have been recorded since his survey. Taylor reviewed 152 cases of lymphosarcoma primary in the stomach. O'Donoghue and Jacobs stated in 1942 that less than 500 cases had been reported in the literature and found the ratio of occurrence of lymphosarcoma of the stomach to cancer of the stomach to be 1:60 as compared to the ratio of 1:58 of the Mayo Clinic report.

In the intestines the most frequent sites of occurrence are the lower ileum, cecum, and rectum. Menne, Mason, and Johnston stated there are approximately 376 authentic instances of involvement of small intestines. The frequent occurrence about the cecum is thought to be due to the vast lymphatic supply in this area as compared to other parts of the intestinal tract. Usher and Dixon reported 36 per cent occurring in the cecum, 38 per cent in the jejunum and ileum, 20 per cent in the colon, and 6 per cent in the rectum.

Lymphosarcoma is found in all age groups. The greatest number of cases, as a rule, is encountered in the third and fourth decades, differing from carcinoma, which has its greatest incidence in the fifth and sixth decades. In cases previously reported[18] the youngest was 51 and the oldest 74 years of age. The average age was 61 years.

The incidence is greater in males than in females, that of lymphosarcoma of the intestine being about 2:1 as pointed out by Chont. Balfour and McCann reported the relative incidence of sarcoma of the stomach in males and females to be 25:1. In the author's series[18] there were 5 females and 2 males.

SYMPTOMS

There are no symptoms which are pathognomonic of lymphosarcoma of the gastro-

intestinal tract. In the early stages the symptoms are referable to the organ involved; later the systemic symptoms such as fever, loss of weight, and pruritus may occur and may be of aid in diagnosis.

In lymphosarcoma of the stomach, pain is the most common symptom; this may be a generalized abdominal pain, but more often is localized in the mid-epigastrium. It may be similar to that of peptic ulcer, but is not alleviated by the taking of food as a rule. The early occurrence of pain is apparently due to involvement of the submucosal plexus of nerves, as pointed out by Madding and Walters. Since the tumor originates in the submucosa, ulceration does not occur as early as in carcinoma. Other symptoms are belching, anorexia, epigastric nocturnal pain, and loss of weight and strength. Hematemesis is uncommon.

FIG. 2. Roentgenogram showing a Miller-Abbott tube in the small bowel with barium about the bulb revealing a complete obstruction of the ileum at this point. There is residual barium in the colon and terminal ileum from a previous examination.

In lymphosarcoma of the intestine, the classic triad is a palpable tumor, occult blood in the stools, and abdominal pain, although these are not found simultaneously as a rule. The condition may be diagnosed as appendicitis or some general constitutional disorder. The pain is colicky with little tendency to localize. The symptoms may also be those of acute or chronic intestinal obstruction, the former being found in the polypoid type of tumor due to intussusception and the latter in the infiltrating type as a result of invasion of the muscle layers of the bowel causing a paralysis and dilatation of the segment of intestine involved rather than a stenosis producing intermittent obstruction. Melena is infrequently encountered.

LABORATORY AND ROENTGENOLOGIC OBSERVATIONS

There is no characteristic blood picture for lymphosarcoma. When an anemia develops, it is usually of a microcytic, hypochromic type. Although Bunting, in 1911, described a specific blood picture for the diagnosis of Hodgkin's disease, this has not been confirmed. In a study on both lymphoblastoma of Hodgkin's type and lymphosarcoma, Roth and Watkins were unable to demonstrate a specific change in the blood picture. Decker, Leddy, and Desjardins found no characteristic blood picture in their review of 450 cases.

Gastric analysis is often of no value in diagnosis. Archer and Cooper reported 10 normal values out of 21 given. This is about the same as reported by Balfour and McCann, with free hydrochloric acid present in 60 per cent of cases in their series.

In lymphosarcoma of the intestine, occult blood is occasionally found in the stool.

Roentgenologic observations are not sufficiently characteristic to allow a specific diagnosis of lymphosarcoma of the gastro-intestinal tract in most instances. The majority of these lesions are diagnosed as carcinoma, possibly due to the great preponderance of this lesion. Even though in the gastro-intestinal tract a specific roentgenologic diagnosis is made in only few instances, this type examination is indispensable for (1) discovering the presence of the lesion, (2) determining, in most instances, its neoplastic nature, (3) sharply localizing the lesion, and (4) permanently recording the original involvement for the determination of its progression or regression at subsequent examinations.

DIAGNOSIS

From what has been said, it is plain that the clinical diagnosis of lymphosarcoma is somewhat indeterminate. A careful history and physical examination, particularly with the finding of peripheral glands or learning of such in the past, are of great aid. These, plus the finding of a gastro-intestinal lesion, might suggest the presence of lymphosarcoma. Holmes, Dresser, and Camp reported a case in which the diagnosis was made on such a basis.

A neoplastic lesion of the gastro-intestinal tract in a young person should bring to mind the possibility of lymphoblastoma.

Gastroscopic examinations may play an important part in diagnosing this lesion.

O'Donoghue and Jacobs cited a case by Gure diagnosed correctly by this method one month after a negative roentgenologic examination of the stomach. This can be explained by the rapidity of growth of many lesions as demonstrated by periodic roentgenologic examinations. Such an instance was reported previously in one of the author's cases;[18] however, the lesion was demonstrated radiographically the second time. Diagnosis of rectal lymphosarcoma by proctoscopic examination is difficult. Usher and Dixon pointed out that in all 10 of their cases of lymphosarcoma with rectal involvement visualized by proctoscopic examination, in no instance could the specific diagnosis be made on the appearance of the lesion. In 1 case of the author's series,[18] a specific diagnosis could not be made by proctoscopic examination.

It has been suggested that the therapeutic response to irradiation constitutes evidence of differential value. This is probably helpful in most cases, but apparently is not entirely dependable. Archer and Cooper cited a case diagnosed histologically by an excellent pathologist as lymphosarcoma and finally by Ewing as "round cell carcinoma having the same radiosensitivity as lymphosarcoma." Clinically this patient was well with no evidence of recurrence ten years later, having been treated with radiation therapy alone.

The preoperative diagnosis in practically all of these cases has been carcinoma. Madding and Walters pointed out that it would seem practical and highly desirable to perform an exploratory operation and obtain a specimen for biopsy even upon patients concerning whom the clinical evidence points strongly toward an inoperable growth. This seems to be well agreed on by other authors.

PROGNOSIS AND COMPLICATIONS

The prognosis for life is very grave. However, as a rule, it is better than that for carcinoma involving similar portions of the gastro-intestinal tract. Pund and Stilling stated that life expectancy after diagnosis averages two years. Charache found only 14 (13.6 per cent) of 103 carefully followed patients to have survived five years or longer. Taylor listed 11 patients out of 152 from the literature who had five-year survivals and added 2 cases. Archer and Cooper found 13 additional cases in a review of 94. They were forcibly struck by the fact that the longer the duration of symptoms before diagnosis, the greater the possibility of cure. Ten-year survivals are extremely rare.

Complications other than from spread of the disease are obstruction, perforation, and hemorrhage, the last mentioned being much less common than the others.

TREATMENT

The efforts in managing lymphosarcoma have been directed along the same lines as those used in treating carcinoma. Parker stated that the individual patient may have his life prolonged with proper management; but the ultimate mortality due to lymphosarcoma still remains unchanged. He stated that every patient who has responded favorably to treatment can be paralleled by a patient who has never had any treatment.

The apparently spontaneous remissions and the survivals among patients with lymphosarcoma, in spite of known inadequate therapy both from a surgical and irradiation standpoint, are puzzling features about the disease. Such cases have been reported by Taylor, Archer and Cooper, and others.

In localized lesions without metastasis, radical surgery of the involved segment and its mesentery, followed by roentgen therapy appears to offer the best results, according to Ritter and Shaffer, Carson, and others. If the condition is inoperable, side-tracking operations should be done as indicated and followed by roentgen therapy. Parker pointed out that it is well known that operations

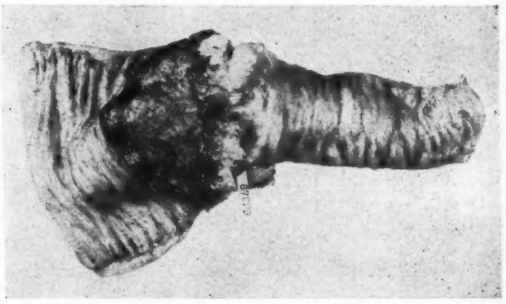

FIG. 3. Photograph of specimen revealing a "napkin ring" obstruction of the ileum. There is dilatation of the bowel proximal to the lesion.

or infections are likely to start up an acute exacerbation in these patients, and that they are likely to die very soon following an extensive surgical operation. Where there is spread of the disease, even the most heroic surgery is valueless in most cases.

Irradiation should be employed in all cases either following surgery or as the sole means of treatment. In Desjardins' classification of tumors from the standpoint of radiosensitivity,[9] he found that the lymphoid cells were the most sensitive and that the lymphocyte occupied first position in this heading. Previously he had reported that the radiosensitivity of the lymphoid elements of lympho-

sarcoma was slightly greater than in Hodgkin's disease.[8] Taylor pointed out that the degree of radiosensitivity of the growth is not predictable from the study of the pathologic material.

Parker stressed the fact that a case with extensive involvement of a hollow organ is not favorable for heavy irradiation, particularly if a large amount is given in too short a time. Reeves emphasized that if a diagnosis of sarcoma of the stomach is made at laparotomy, irradiation alone is more satisfactory and treatment should be almost as heavy as for carcinoma. Holmes asserted that when lesions are localized in the gastrointestinal tract, complete removal either by irradiaton or surgery should cure the patient.

Jenkinson, Kinzer, and Brown found that the reticulum cell tumor was more resistant to irradiation than the lymphocytoma. This was also the opinion of Madding and Walters. Explanation lies in the fact that the former tumor originates from reticulum cells. In a series of 50 cases having intestinal involvement, including 25 cases of each type, reported by Usher and Dixon, there was no difference found in the radiosensitivity of the two. Portmann stated that no matter where the tumors originate, they have the same symptomatic and physical features, and malignant lymphocytomas also vary in their response to irradiation irrespective of their primary anatomic location.

Lymphosarcoma reacts more favorably to irradiation therapy than to any other form of treatment to date. There is still a wide divergence of opinion concerning the technic of irradiation for lymphosarcoma; however, space does not allow for descriptions or discussion of the controversial points in this paper. As emphasized by Parker, the two most important factors in irradiation therapy are the amount of radiation given at a time and the total period of administration. The wave length of the ray generated is not significant. However, Desjardins[10] and Leddy[7] emphasized the importance of low voltage therapy in the treatment of lymphosarcoma. For discussions of this subject, the reader is referred to the original articles.

CASES

CASE 1.—A white woman, aged 51, registered at the Scott and White Clinic on March 28, 1941, complaining of a growth in the left side. Onset was five to six months previous with considerable indigestion, gas, and increasing constipation. Since a small girl she had had a mass in the region of the lower left ribs. This had been growing some lately. Because of loss of weight and weakness, she was referred to the clinic for complete examination and treatment. Physical examination revealed a lipoma 4 by 6 cm. in the lower left posterior axilla, a doughy thickening in the lower lateral quadrant of the left breast, but no definite mass; a tender, firm mass about 5 by 7 cm. in the upper left quadrant of the abdomen. Examination of blood showed 13.5 Gm. hemoglobin; erythrocytes, 4,760,000; leukocytes, 8,650, with 73 per cent lymphocytes. Roentgen examinations of the chest, urinary tract, pyelogram, stomach, and colon were normal. The mass was found to be outside these structures.

Left rectus exploration revealed a large friable tumor involving about 5 cm. of the lower jejunum. Adjacent mesentery contained large nodes. Enteroenterostomy was done to by-pass the growth.

The pathologic diagnosis was lymphosarcoma of the ileum.

The patient had a series of roentgen-ray treatments to the anterior and posterior abdomen, receiving 220 r per day to a total dose of 1,368 r per area not counting backscatter. Factors were 200 kilovolts, 18 milliamperes, 50 cm. distance, 1 mm. copper and 1 mm. aluminum filters.

She had two similar courses of roentgen therapy in July and October. The patient continued to grow worse and died on November 13, 1941, eight months after being first seen at the clinic.

CASE 2.—A white man, aged 41, registered at the clinic July 14, 1944, having numerous complaints. The onset in September, 1943, began with cramps in the lower abdomen. He had had numerous examinations with conflicting opinions. In spite of many types of treatment, he had continued to grow worse. After one thorough examination he was told he did not have a cancer and to forget it. He continued to grow weaker and presented himself for examination and treatment.

Physical examination revealed an emaciated white male, weight 92 pounds; temperature, normal; respiration 18 and pulse 90. The examination was negative except for the abdomen. Visible peristalsis appeared in the left abdomen. Inspection showed the right renal area to be much flatter than the left. Rectal examination revealed a suggestive mass high on the left. This was quite tender, irregular, hard, and about 7 cm. in diameter. It felt like multiple nodules.

Proctoscopic examination revealed an extrinsic mass in the pelvis.

Examination of the blood revealed 12 Gm. or 80 per cent hemoglobin; 4,040,000 erythrocytes; 10,350 leukocytes; 74 per cent neutrophils; 17 per cent lymphocytes; 5 per cent monocytes; and 4 per cent eosinophils. A neutrophilia with some left shift was reported. The sedimentation rate was 55 mm. per hour.

Roentgen-ray examination of the small bowel revealed the lower ileum to be fixed in the pelvis. No obstruction was noted. A colon examination was negative except for the cecum being fixed low in the pelvis (Fig. 1).

Exploration was carried out on July 24 and revealed a lesion which was quite firm, involving 15 cm. of mid-ileum and 5 cm. of sigmoid. Another mass at the base of the bladder involved the sigmoid and cecum. The pathologist reported that tissue from the mass and node revealed a lymphocytic type of lymphosarcoma.

Postoperative roentgen therapy consisted of dividing the entire abdomen into four fields front and back with each area receiving a total dose of 728 r to the skin without backscatter. Factors used were 200 kilovolts, 1 mm. of copper, 1 mm. of aluminum filters, 50 cm. distance, 18 milliamperes, time necessary to administer 224 r which was given to one field daily.

The patient returned October 29 feeling much better. He had gained weight and was able to be up and about some of his business. Examination did not reveal any enlarged nodes or other significant finding. Examination of blood at this time revealed 11.5 Gm. or 76 per cent hemoglobin; 3,970,000 erythrocytes; 7,200 leukocytes; 69 per cent

neutrophils; 24 per cent lymphocytes; 2 per cent eosinophils; 3 per cent basophils; and 3 per cent monocytes.

Roentgen therapy was given again as noted above. He was given a transfusion and supportive treatment and at the time of dismissal blood examination showed 12.5 Gm. or 83 per cent hemoglobin; 4,120,000 erythrocytes; 5,600 leukocytes; 86 per cent neutrophils; 7 per cent leukocytes; 5 per cent eosinophils; and 2 per cent monocytes.

The patient returned home and seemed to get along quite well for a couple of months and returned to work. He later developed a marked anemia and leukopenia which did not respond to any type of therapy, including many transfusions, which were given by his local doctor. He continued to grow worse and died May 12, 1945, ten months after first being seen at the clinic.

CASE 3.—A 40-year-old white man entered the Santa Fe Hospital October 23, 1944, complaining of pain in the right lower quadrant of his abdomen, and that his "stomach" had been sore for a month. Two weeks previously he had vomited and was relieved. Pain and soreness remained in the mid-abdomen. Three days previously he again had a vomiting spell with generalized abdominal pain which remained until the day before he entered the hospital when it localized in the right lower quadrant.

Physical examination was negative except for tenderness over the entire abdomen with muscle splinting in the right lower quadrant. The peritoneal reflex was positive on the right.

Laboratory studies revealed that the white blood count was 7,350 with 64 per cent neutrophils and 36 per cent lymphocytes. The next day the count was essentially the same.

An appendectomy was done October 28 and the appendix was very difficult to expose because it was adherent behind the cecum. The pathological report was acute diffuse appendicitis. The patient had a very satisfactory postoperative course and was dismissed to return home November 11.

He returned sixteen days later with the same complaint. A clinician noted symptoms were those of a partial intestinal obstruction.

Physical examination this time revealed a palpable mass in the mid-abdominal area, which was firm and quite tender to pressure.

Studies of the gastro-intestinal tract were negative. Laboratory studies revealed 63 per cent hemoglobin; 3,260,000 erythrocytes; 12,500 leukocytes; 73 per cent neutrophils; and 27 per cent lymphocytes. The patient continued to get worse, and on December 30, a Miller-Abbott tube was placed in the small bowel.

Exploration on January 4 revealed loops of ileum adherent and an obstruction four feet from the cecum with a second obstruction one foot from the cecum. The entire mesentery was friable. The ileum was resected and a side to side anastomosis was done to the transverse colon.

The pathological report was lymphosarcoma, reticulum cell type, of the lower ileum. The patient had an uneventful postoperative course. From January 15 through January 26 he received roentgen therapy to four abdominal fields front and back, each receiving 768 r to the skin without backscatter. Factors used were 200 kilovolts, 1 mm. copper and 1 mm. aluminum filters, 50 cm. distance, 18 milliamperes. A daily dose of 224 r was administered.

The patient returned March 15 and received another and similar series of roentgen-ray treatments. At this time he was doing fine, but still had a very small palpable mass present.

He returned last for observation on June 18, 1945, having no complaint and no significant physical finding. A third series of roentgen-ray treatments similar to the others was given and the patient is to return for observation in three months.

CASE 4.—A 73-year-old white woman registered at the Scott and White Clinic on February 12, 1945, complaining of adhesions and hernias. About one year after an abdominal operation in 1932, she had developed hernia on the left side. She later began having cramping abdominal pain with much gas. Her condition had gradually become worse and she had had occasional spells of severe nausea and vomiting. At the time of entering the clinic she had severe cramping abdominal pain associated with nausea and occasional vomiting. Her bowels had been moving only with the aid of medicine and enemas.

Physical examination revealed the blood pressure to be 200/120; the heart had rough, blowing, systolic murmurs over all valvular areas, being maximal over the aortic and pulmonic regions; there was aortic sclerosis. The abdomen was slightly protuberant and tympanitic. No definite masses were felt, but some tenderness appeared along the right costal margin; there were bilateral reducible inguinal hernia and an old mid-line scar.

The physician attending noted that observations were classical of intestinal obstruction although there was little distention at the time.

Laboratory studies revealed 80 per cent or 12 Gm. hemoglobin; 4,420,000 erythrocytes; 6,200 leukocytes, with 68 per cent neutrophils and 23 per cent lymphocytes.

Roentgen-ray studies revealed Grade 2 enlargement of the heart and calcification of the aorta. A flat plate showed gas in the small bowel comparable with early obstruction of the ileum. A Miller-Abbott tube was passed, and barium injected into it revealed complete obstruction of the ileum (Fig. 2).

Exploration revealed a complete "napkin ring" type obstruction of the ileum about eight feet from the ileocecal valve. There was slight involvement of nodes in the mesentery. The growth was resected and a lateral anastomosis was done.

The pathologist reported Grade 4 lymphosarcoma of the ileum producing a stricture with complete obstruction and penetration of the bowel wall with involvement of adjacent lymph nodes (Fig. 3).

The patient had an uneventful recovery and was dismissed on March 11, 1945, to return in two months for roentgen therapy.

Follow-up revealed that the patient died at 2:30 a. m. April 28 in her home. The cause of death was a cerebral accident. The patient died thirty minutes after its occurrence.

CONCLUSIONS

1. Four cases of gastro-intestinal lymphosarcoma have been presented, the first having a palpable abdominal mass and tendency toward obstruction. The second presented a real diagnostic problem over a period of fifteen months with no definite physical finding and conflicting opinions. The third case simulated appendicitis, the patient returning only a few weeks after dismissal with symptoms of partial and later complete obstruction. In this instance, due to the small lumen of the appendix, it was probably obstructed early and presented symptoms just as noted with carcinoid tumors. The last case is interesting in that it presented a complete obstruction of the ileum by a "napkin ring" type of growth. This is the most unusual type of intestinal

lymphosarcoma as compared to the usual diffuse "cuff" type.

2. In no instance was there clinical evidence of the correct diagnosis.

3. Treatment consisted of surgery for biopsy and any further corrective measures that could be carried out. This was followed by roentgen therapy in all instances.

4. In spite of apparently adequate therapy, 3 of the 4 patients are dead, 2 directly from the malignancy, surviving eight and ten months respectively, and the third from a cerebral hemorrhage. One has survived eight months since first being seen and is apparently in good health.

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ALBERS-SCHONBERG DISEASE AFFECTING A SOLDIER

REPORT OF A CASE

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S. M. MOKROHISKY, MAJOR, M. C., A. U. S.
and
M. C. RITOTA, CAPT., A. U. S.

Albers-Schönberg first described the disease which bears his name in 1904 and published his original article in 1907. He used the term "marble bones" in his description because the roentgenographic density of the bones suggested marble to him. Since then such synonyms as "osteosclerosis," "osteopetrosis," and "osteosclerosis fragilis generalisata" have been employed to designate this rare and unusual condition. The term "osteosclerosis with anemia" was introduced by Ghormley, who reported a case in which definite anemia was present. The cause of the disease is unknown.

By 1923, 7 cases had been reported in the literature in Germany and 2 cases in the American literature. In 1926, Bernhardt stated that 16 cases had been reported up to that time. In the period from 1926 to 1928 reports of 10 additional cases were found by Pirie in the literature, to which he added reports of 4 cases. Uniquely, the 4 cases presented by Pirie occurred in one family; the patients were a mother and her three children. Pirie described the bones as chalky rather than as suggestive of marble. Zimmermann, in 1943, described what he stated to be the one hundred twentieth case reported in the literature. He wrote that the bones in this disease are subject to fracture with slight trauma. In the differential diagnosis of Albers-Schönberg disease the following conditions must be considered: fluorosis, Paget's disease, acromegaly, and erythroblastic anemia.

REPORT OF A CASE

An infantryman, 26 years of age, was admitted to the station hospital on January 28, 1945, complaining of difficulty in wearing a helmet of regulation size. He had served in the army for three years with a unit wherein he was not required to wear the helmet constantly. It was only when he was transferred to the infantry and was required to wear the helmet at all times that he had found it necessary to complain. Other than the difficulties referable to size of his head, he had had no symptoms. He had been seen in the neuropsychiatric clinic as an out-patient and a roentgenogram had disclosed that his head was unusually large. Moreover the bones of his head were found to be of unusual thickness and roentgenographic density. He was then admitted to the hospital.

His past history was normal save for the fact that his head always had been considered large. He had learned slowly as a child and his schooling had continued only through the fifth grade. He never had

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sustained what he considered to be a serious illness nor a severe injury and he never had fractured a bone. He was one of six children and no member of his family, as far as the patient could tell, suffered from a disorder similar to his.

The only outstanding physical finding was that of the unusually large head; it was not of abnormal shape. The circumference of the calvarium was 65 cm. The fronto-occipital diameter was 23 cm. and the bitemporal diameter, 18 cm. The size of the patient's skull can be appreciated when it is recalled that the circumference of the head of a man who wears a size 7½ hat, which is relatively large, measures about 59 cm. (Figs. 1 and 2). The man was 5 feet, 9 inches (175 cm.) tall and weighed 180 pounds (81.6 Kg.).

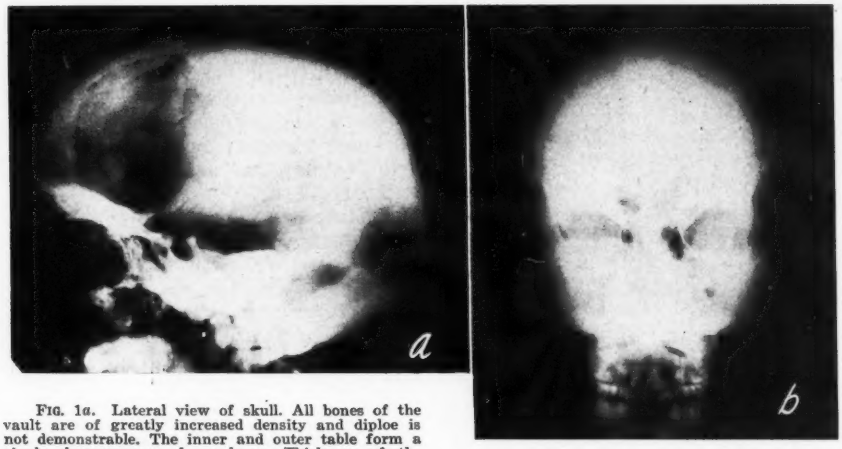

FIG. 1*a*. Lateral view of skull. All bones of the vault are of greatly increased density and diploe is not demonstrable. The inner and outer table form a single, homogeneous dense layer. Thickness of the cranial bones ranges from 1.6 cm. in the frontal region to 3.3 cm. in the occipital region. The sella turcica is normal in size and bridging of the clinoid processes is incomplete. Vascular channels of the internal table are apparent only on overexposed roentgenograms and are narrower than normal. The suture lines are obliterated. The mastoid processes are apneumatic and the frontal sinuses are small.

b. Bones of the face. Density is homogeneously increased and trabecular structure is obliterated, except that in the mandibles, trabeculation is still discernible. The maxillary and ethmoid sinuses are of normal size. The teeth are of normal density and the pulp cavities are radiolucent.

Ophthalmologic examination revealed that vision of each eye was 20/20 without correction. The margin of the left optic disk was poorly defined and the disk was grayish; the normal physiologic cupping was absent and the findings were interpreted as indicative of early papilledema. Examination of the ears, nose, and throat gave normal results. Hearing was normal. The patient had all of his original teeth and they were in perfect condition.

Thorough laboratory studies of the blood and urine gave normal results.

COMMENT AND SUMMARY

Albers-Schönberg disease is characterized most frequently by diffuse increased roentgenographic density of all of the bones of the body, a tendency of the bones to fracture easily, faulty dentition, optic atrophy, deafness, and anemia.

As the history indicated that this soldier's skull always had been enlarged, probably he had had Albers-Schönberg disease all of his life. Nevertheless, although his bones were of characteristically increased density, he never had had a fractured bone; yet he had engaged in rather strenuous activity. The dental equipment of the patient was perfect. This not only is an unusual feature to encounter in association with Albers-Schönberg disease but also it bears on a statement made early in this paper; namely, that fluorosis must be considered in the differential diagnosis of Albers-Schönberg disease. The perfect dental equipment of the patient furnished a relevant differential point. In fluorosis, the enamel of the teeth is mottled. Although the patient had no visual symptoms, ophthalmologic examination revealed evidence of mild, early papilledema in his left eye. His hearing was not impaired. The patient's bones were very dense (Fig. 3) and it might be expected that some encroachment

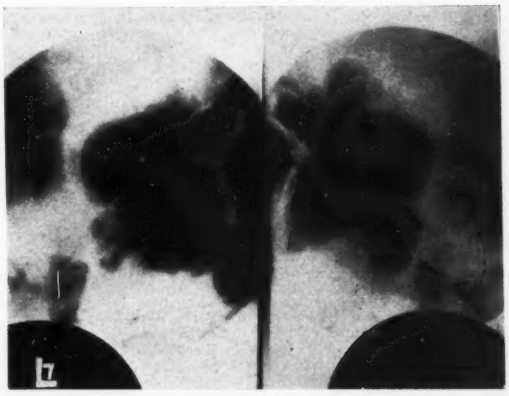

FIG. 2. The optic foramina are normal and equal in size, measuring 6 mm. in diameter. (The normal average diameter is 4.3 mm.)

on the bone marrow would be found; nevertheless, studies of his blood gave normal results. Moreover, in this patient's case there did not appear to be a hereditary or familial element.

The features which make this case worthy of report are that had the patient's head not been of unusual size the diagnosis would not have been made at all and, even as events turned out, diagnosis was not made until the twenty-sixth year of his life.

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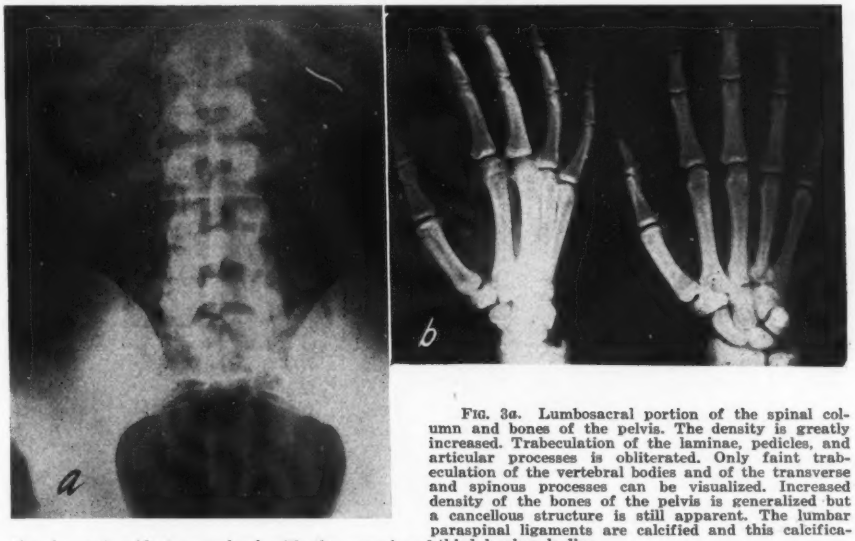

FIG. 3a. Lumbosacral portion of the spinal column and bones of the pelvis. The density is greatly increased. Trabeculation of the laminae, pedicles, and articular processes is obliterated. Only faint trabeculation of the vertebral bodies and of the transverse and spinous processes can be visualized. Increased density of the bones of the pelvis is generalized but a cancellous structure is still apparent. The lumbar paraspinal ligaments are calcified and this calcification is most evident on a level with the second and third lumbar bodies.

b. All bones of the hands have acquired generalized increased density but the medullary cavities are still apparent.

ACTION OF PENICILLIN PROLONGED BY CHILLING OF INJECTION AREA

Gonorrhea patients have been effectively treated with one large dose of penicillin injected into the upper arm muscle after thorough chilling of the area with ice, according to a report appearing in the March 9 issue of *The Journal of the American Medical Association.* This chilling is done before and after the injection to prolong the effects of the drug.

Lieut. Commander Max Trumper, from the Naval Medical Research Institute, and Commander Gershom J. Thompson, from the U. S. Naval Hospital, say that they treated 100 patients who had uncomplicated gonorrhea. These patients were divided into three groups, group one receiving 50,000 units of penicillin dissolved in a salty solution, group two receiving 70,000 units, and group three 100,000 units.

The resultant cures in the first two groups were 77.3 per cent and 85.7 per cent respectively. The 100,000 unit dosage cured 91 per cent of the patients. Commenting on this, the authors say that "this percentage compares favorably with the results obtained by others using multiple injections as well as the single injection of 100,000 units of penicillin in mixtures of beeswax and peanut oil.

"It can be concluded from the high percentage of cures that the chilling technic prolonged the effective action of penicillin, reduced to one the number of injections required to treat uncomplicated gonorrhea and rendered that injection painless, all of which was accomplished without introducing any other foreign substance intramuscularly."

The experiments were carried on at the National Naval Medical Center at Bethesda, Md.

INFANTILE PARALYSIS IN SUMMER CAMPS

A summer camp where poliomyelitis, more commonly known as infantile paralysis, has occurred need not be shunned, according to the April 13, 1946, issue of *The Journal of the American Medical Association* in answer to a query. The disease is not spread by a locality but rather is transmitted from person to person both directly and through carriers.

The fear was expressed by a New York doctor of sending children back next summer to a Pennsylvania camp where 11 cases of poliomyelitis were reported within two weeks. *The Journal* answer follows in full:

"The means of spread of the virus of infantile paralysis has not been worked out completely. It is, however, recognized that the disease is not one due to a 'place infection' but is transmitted from person to person probably both directly and through vectors. Therefore there would appear to be no reason for not recommending a summer camp, dwelling, or community because cases were reported there during the previous year."

TAYLOR COMBINATION OXYGEN TENTS

FOR ADMINISTRATION OF OXYGEN TO INFANTS, CHILDREN, AND ADULTS

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LUFKIN, TEXAS

For the administration of oxygen at the Taylor Clinic we have designed a small oxygen tent unit for infants and children, and a larger unit for adults. The accompanying pictures show these units in use (Fig. 1*a*, *b*, *c*).

All patients, whether infants, children, or adults, are placed in the tent, rather than under the tent. This makes it possible to maintain a high concentration of oxygen when needed.

From the Taylor Clinic.

An ice chamber (Fig. 1*d*) is enclosed in the tent and designed to be placed at the head of the bed when in operation. The ice chamber is supported by metal rods extending from the ice chamber and resting on the mattress. This arrangement makes it possible to raise and lower the bed to any angle desired. The ice chamber is designed with openings at the top and bottom of the chamber which cause a convection circulation of cool air in the tent. There is an adjustable shutter in the upper and lower openings of the chamber to regulate the desired temperature in the tent. A sponge in the bottom of the ice chamber is kept wet by the melting ice to prevent the humidity from becoming too low when administering a high concentration of oxygen. It is not necessary to use soda lime to absorb carbon dioxide thrown

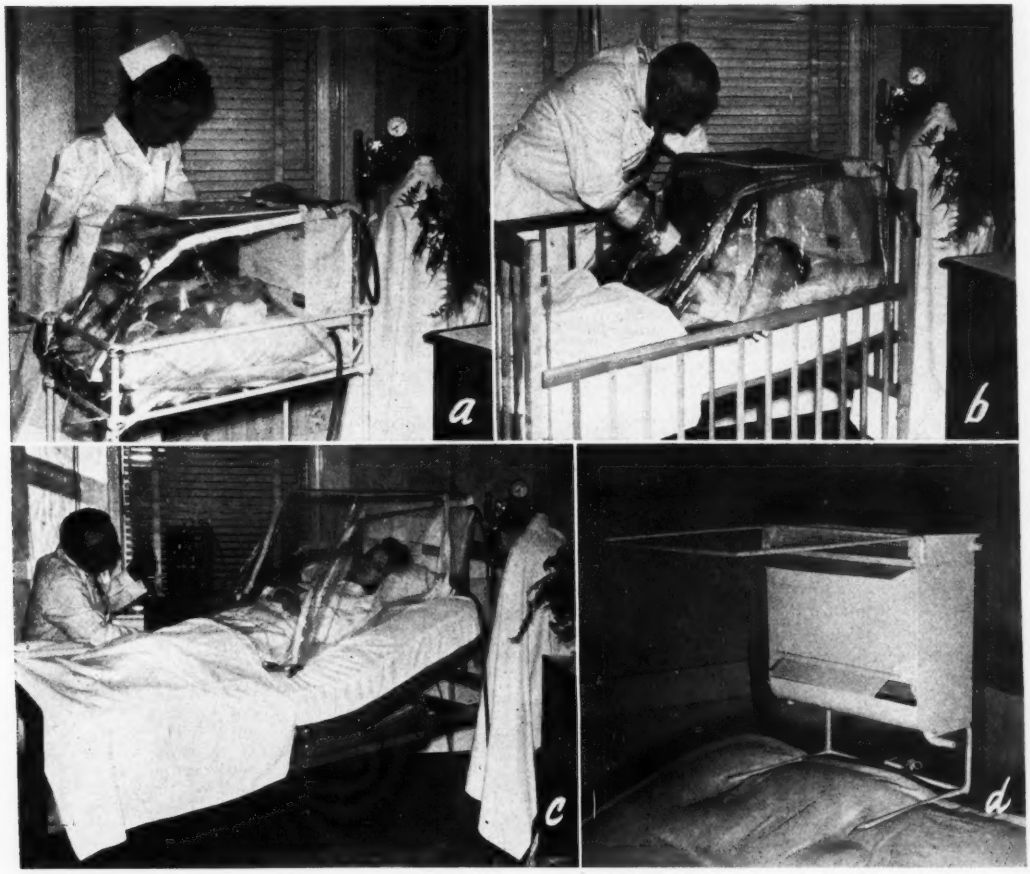


FIG. 1*a*. Oxygen tent unit in operation in a bassinet, adapted for the treatment of infants.

b. Treatment of a small child in a baby bed with the same ice unit as in *a* but with a larger tent. All tents have a zipper just above the ice chamber for putting ice into the chamber.

c. A larger ice unit and tent for the treatment of adults, and the means of testing the oxygen meter for graduating the proper concentration of oxygen. Further use of gas analysis will not be necessary as the concentration of oxygen can be regulated with the oxygen meter.

d. Ice chamber in the proper position at the head of the bed with the tent removed. Note the cord just above the mattress that connects the unit to the bed. This cord should be tied loosely around the railing of the bed to hold the tent and ice chamber in proper position when raising and lowering the bed.

off by the patient because the volume of air and oxygen given reduces the carbon dioxide in the tent to a point that it is not injurious to the patient. For infants needing a warmer air, hot water bottles may be placed in the chamber.

The desired concentration of oxygen may be accurately administered without the use of gas analysis. We have designed an oxygen meter or oxygenaire mixing valve which is connected to the oxygen gauge. It is graduated so that a specific amount of air can be administered with the oxygen, and by setting this valve with a certain liter flow of oxygen it is possible to administer and maintain any desired concentration of oxygen in the tent, from 40 to 90 per cent. The ability to administer a high concentration of oxygen when desired is one of the advantages of these tents, for at least two-thirds of all patients treated with oxygen need a high concentration at some time during their treatment.

For infants and children the small tent that fits into the bassinet and child's bed is very convenient and satisfactory in every way. It offers an advantage over previous methods that we have used. Oxygen tents in which a high concentration of oxygen can be administered when needed have proved to be the most satisfactory method in our hands. Both units described and illustrated here are very portable and weigh about fifteen pounds. They can be manufactured at a very low cost and can be used for all classes of patients from infants to old age. All-over transparent tents are much more pleasant for the patient than tents ordinarily used.

While we have used many different methods for administering oxygen in our clinic, for good oxygen therapy we like the small tents described above better than any method previously used.

CANCER OF LUNG INCREASING

Cancer of the lung, which accounts for at least 5 per cent of all cancers, is apparently on the increase, according to Abraham Oppenheim, M. D., of Harlem Hospital, New York. As in other types of cancer, cure is possible with early diagnosis and treatment.

Writing in *Hygeia*, Dr. Oppenheim says that cancer of the lung may occur at any age although it predominates in persons between the ages of 40 and 60. Men are most often stricken, totaling 83 per cent of all cases.

TUBERCULOSIS OF LARYNX

A New York physician, Dr. Mervin C. Myerson, reports that sulfanilamide spray has proved useful in alleviating the agonizing pain frequently associated with tuberculosis of the larynx.—J. A. M. A., April 13, 1946.

SYMPOSIUM ON CANCER RESEARCH

A symposium on cancer research was held April 13, 1946, at the University of Texas M. D. Anderson Hospital for Cancer Research in Houston. Seven invited speakers from Austin, Galveston, and Houston presented papers.

Dr. E. W. Bertner, acting director of the hospital and president of the Texas Medical Center, gave the "Welcoming Address." He pointed out that two symposia a year are planned to discuss various phases of cancer research. Basic research and clinical programs will alternate and panels of outstanding speakers will be invited. The development and future of cancer research in Texas were briefly stressed.

The following abstracts of the scientific presentations were kindly submitted by the speakers.

Dr. C. D. Leake, vice-president of the Medical Branch of the University of Texas, spoke on "Developing Lines of Cancer Research":

It is peculiarly fitting that we should, during National Cancer Week, take stock of our research opportunities in cancer. The current interest in cancer has been occasioned by our success in public health. Preventive medicine measures and effective public health have greatly increased the expectancy of life, with a resulting great increase in the incidence of cancer. Effective control of cancer is dependent upon a thorough understanding of its cause. The greatest opportunity in cancer research is that of coöperation. All kinds of scientific workers, together with medical men and health workers in all fields, can effectively coöperate together in cancer research. The M. D. Anderson Hospital for Cancer Research is established by the people of Texas to be a center for cancer research throughout the state. Generous coöperation among scientific workers all over the state, together with physicians throughout the area, can afford the best stimulus to the M. D. Anderson Hospital for Cancer Research to exert its guiding influence in fundamental as well as clinical research on malignancy.

Dr. Stuart A. Wallace, Fulbright professor of pathology, Baylor University College of Medicine, Houston, discussed "Some Problems Associated with Tumor Development and Behavior in Man":

One of the problems which arises is whether or not masses are true neoplasms. Benign tumors frequently have a known etiology and there is a tendency to consider them not true neoplasms, for example, nasal polyps, thought due to allergy, and keloids, thought due to a marked overgrowth of repair, mainly in the Negro race. In many respects, however, they behave as tumors.

In regard to development of malignant tumors, there is a variety of causes or predisposing factors. Cohnheim's cell rest theory accounts for such tumors as mixed tumors of mediastinum and others arising from misplaced cells during fetal development.

Heredity has been accurately proven in white mice, but the results cannot be applied to man with any degree of certainty. There were 159,926 deaths due to cancer in the United States in 1941. When such a large number die of malignant tumor, it is possible to have so-called cancer families without heredity playing any role.

Virus causes tumors in animals. In man, proof is required, although some investigators hope to find a virus as the cause of cancer.

Physical agents play a definite role in the causation of cancer. Marked prolonged exposure to sunlight or roentgen rays incite the development of cancer of the skin. Roentgenologists develop leukemia more frequently than others and workers with radioactive substances have developed bone sarcoma.

A few tumors are ascribed to previous repair processes such as bone sarcoma at the site of an ancient fracture, and liver carcinoma in cirrhotic liver. Hormones have a definite effect on rate of tumor growth and possibly on their development. Chemical carcinogenic agents are known to produce cancer in animals and also in man.

Thus there are many factors of which a few were discussed in the causation of cancer. We do not know the ultimate cause of cancer. Many of the above factors may act as preparing the cells for abnormal growth or in preparing the cells for action by another agent.

Much experimental work has been done in animals, some of which can be applied to human beings, but, unfortunately, much does not apply.

The difficulties of deciding microscopically borderline lesions were discussed. Since there is no stain or chemical analysis capable of detecting precisely malignant cells, the early and questionable lesions constitute a daily recurring problem to the pathologist.

Dr. C. M. Pomerat, professor of anatomy, the University of Texas Medical Branch, spoke on "Some Approaches to the Cancer Problem by Means of Tissue Culture Methods":

By 1911 it had been proved that both carcinomatous and sarcomatous cells could be maintained *in vitro* but it was not until some fifteen years later that the continuous culture of malignant cells in pure strains was fully established. Such elements have been demonstrated capable of producing characteristic neoplastic growths after having been removed from the host animal for several years. Experimental malignancies produced by chemicals can be cultivated and induced *in vitro*. Tissue culture technique has established that malignancy is a permanent characteristic located in the cells themselves. They grow vigorously but little difference can be found between them and nonmalignant cells with respect to colony formation, residual growth energy, rate of proliferation, and survival under adverse conditions.

Tissue culture methods offer an excellent means of establishing the diagnosis of brain tumors since characteristic cells can be found in nerve tumor outgrowths. Recent investigations by Willmer and his associates have demonstrated that cells *in vitro* probably owe their growth energy to a nonphosphorylating glucolytic system. Embryonic juice apparently brings about a decrease in carbohydrate metabolism and an increase in protein synthesis. These events have not yet been found to differ significantly in the activity of malignant versus nonmalignant cells *in vitro*.

Dr. Alfred Taylor, the Biochemical Institute, the University of Texas, Austin, discussed "The Present Status of the Virus Concept in Cancer Research":

The cell autonomy hypothesis of cancer causation has dominated cancer research for many years. This concept considers cancer induction and development to be due to an irreversible change within the affected cells. It is maintained that the cell is the common denominator for all the multitude of influences which induce malignancy in normal tissue. Once the transformation from normal cell to malignant cell has occurred, no continuing cause is necessary.

The other main concept considers cancer to be the result of the establishment within the cell of a specific tumor agent (a virus). As the tumor develops, there is a concomitant reproduction of cells and tumor agent. The specific tumor agent or virus concept is supported by laboratory observations beginning with the demonstration of virus causation for the Rous sarcoma in fowls.

Several papers have been published from the Biochemical Institute of the University of Texas giving the results of investigations designed to demonstrate tumor production in mice with cell-free extracts of materials from eggs containing implants of mouse mammary carcinoma. Successful experiments with both Berkefeld filtered extracts and lyophilized yolk from eggs containing yolk sac implanted mouse mammary tumor have been reported.

In association with these studies, mouse mammary carcinoma has been cultivated in eggs continuously for nearly three years. Recently it was noted that when tumor tissue from the egg series of mouse tumor was injected back into mice, the tumor which resulted was frequently a mixed carcinoma-sarcoma. Since the egg grown tumor has always remained histologically stable, transplants can be made into mice with the same basic material and the induction of malignancy in the normal cells of the stroma studied for long periods of time under various conditions. In this manner various types of highly malignant neoplasms have been obtained.

Using these different methods of approach, mammary carcinoma, lymphosarcoma, spindle-cell sarcoma, round-cell sarcoma, and many tumors not classified have been produced in mice by a tumor agent or virus obtained from mouse mammary carcinoma. In view of these data it would seem that the virus or specific tumor agent concept of cancer causation can be extended to mouse tumors in general. Further, since extensive research has shown the biological and biochemical similarity of mouse and human tumors, the primary cause of the cancer disease in man may also prove to be in the same category.

Dr. W. A. Selle, professor of physiology, the University of Texas Medical Branch, spoke about "Extrinsic Factors in Carcinogenesis":

One of the most fundamental discoveries in the field of cancer research is the observation that certain chemical and physical agents when in contact with animal tissue are capable of inducing cancer. More than 280 chemical carcinogens, widely differing in structure, have now been found. Curiously enough, among the substances of closest chemical similarity, one compound may be highly carcinogenic, another entirely inactive. There is, then, no correlation between molecular structure and carcinogenic potency. Another equally significant discovery is the observation that extrinsic factors of various types alter the activity of these carcinogenic agents. The species, genetic constitution, age, and sex of the animal employed, the site of application, the amount and composition of the diet, trauma, and certain physical factors of the external environment, such as temperature and ultraviolet irradiation, all tend to influence carcinogenesis. Since the causal and formal genesis of cancer is not understood, the agency by which extrinsic factors operate to accelerate or retard carcinogenesis is entirely unknown.

Trauma is one extrinsic factor about which there has been much controversy. It is still doubtful whether a single trauma can produce cancer in a

normal tissue. Trauma to tissues in a preneoplastic condition, however, seems capable of stimulating tumor formation. Increased environmental temperature reduces the incidence and time of induction of spontaneous mammary tumors of the mouse, but enhances tumor formation in an animal exposed to ultraviolet light, or painted or injected subcutaneously with a chemical carcinogen, or injected with tumor cells from another animal.

Converging evidence from various sources indicates that diet and the nutritive state play a most significant role in the induction of tumors, but a relatively minor one in the further progress of already established tumors. In general, tumors tend to develop earlier and in larger numbers in animals maintained in a good nutritive condition. Restriction in caloric intake diminishes the incidence and increases the induction period of spontaneous mammary tumors and tumors induced by the painting or injection of chemical carcinogens or by exposure to ultraviolet light. Likewise, diets deficient in necessary constituents, such as the amino acids, lysine and cysteine, suppress carcinogenesis. The inclusion in the diet of certain fats tends to augment tumor formation. On the other hand, workers at the University of Wisconsin have reported that inclusion of small amounts of coconut oil or lauric acid inhibits the formation of liver tumors by butter yellow. While some writers advocate for cancer prevention in man the eating of a minimum of carefully selected food, there is no direct evidence as yet that rigid dietary measures are of value in the control of human cancer. It has been argued that effective anti-cancer diets must be so drastic as to be impracticable. It has also been pointed out that nutritionally poor diets tend to favor the development of liver cancer in rats and mice. Generalizations regarding diet and cancer in man are thus hazardous at this time.

Continued studies of the accelerating and retarding influences of extrinsic factors on carcinogenesis will help toward a better understanding of the transformation occurring within the cell which results in the riotous and uncontrollable proliferation. Such studies may lead to the discovery of potent inhibitory factors feasible of application in the human being.

We look forward to the day when such naturally occurring influences are known and means are devised whereby cancer may be adequately prevented. To hasten that day, it would seem that we need to apply to the cancer problems the energy, determination, and coöperative effort which proved effective in solving the military and medical problems of total war. Organized cancer research on a large scale is long over-due.

Dr. A. N. Taylor, associate professor of physiology, the University of Texas Medical Branch, gave a paper on "Nucleic Acid Metabolism":

The work of Miescher in which he isolated chemical substances from the nucleus and called them "nucleosins" was one of the first contributions to our understanding of the metabolism of what we now call nucleic acids. Our present knowledge of nucleic acids, their structure, chemistry, and distribution, is based largely on the investigations of Levene and his coworkers.

A nucleic acid in its simplest form is an ester of phosphoric acid and an organic radical; the organic radical consists of a sugar and a nitrogenous component which is a cyclic derivative of urea. The nucleic acids were recognized early as being of two types differing in the carbohydrate and in one of the pyrimidine bases. It was thought that ribonucleic acid (yeast nucleic acid) was confined to plant cells and desoxyribonucleic acid (thymonucleic acid) to animal cells. It is now recognized that both types exist in all cells, thymonucleic acid being found on the protein framework of chromosomes and ribonucleic acid being found in the nucleolus and in cytoplasm.

Employment of newer techniques such as the Feulgen nucleal reaction, ultraviolet spectroscopy, enzymatic hydrolysis, and the ultracentrifuge has added greatly to our knowledge of the relationship of the two nucleic acid types to one another, and of the extent to which these acids enter into the vital cellular activities. It has been shown that there is an increase in the concentration of ribonucleic acid in the cytoplasm of maturing eggs, and that there is a decrease of the ribonucleic acid which parallels the increase of desoxyribonucleic acid in the developing embryo. Rapidly dividing cells and gland cells have high concentrations of both types of nucleic acids, but especially of ribonucleic acid. Nucleoproteins, important in cytoplasmic synthesis, are influenced by genetic changes in the chromosomes. An increase of thymonucleic acid at heterochromatic regions of the chromosome increases the concentration of cytoplasmic nucleic acids (Painter).

Nuclear enlargement, increased basophily, greater number of nucleoli, and larger chromosomes have been generally reported as being characteristic of the nuclei of cancer cells. This has been explained by Biesele as being the result of growth and division of chromosomes without a breakdown of the nuclear wall or division of the cell as a whole (endomitosis). He further states that the frequency of endomitosis and the relative abundance of nucleic acids in a tumor seem to be proportional to the degree of malignancy of the tumor. Larger amounts of ribonucleic acid in the cytoplasm of human tumor cells than in corresponding normal cells have been reported.

Sodium nucleinates, particularly sodium ribonucleinate, significantly increase rates of growth in tissue cultures, and it has been suggested that ribonucleic acid may be an important factor in the proliferation of cells in wound healing. This possible relation to cancer cell proliferation is provocative. The evidence indicates that there is a disturbance of nucleic acid metabolism in the tumor cell.

Dr. F. Schlenk, biochemist at the M. D. Anderson Hospital, reviewed "Studies on Amino Acid and Nucleotide Metabolism":

Amino acids are the building stones for protein synthesis in normal and neoplastic tissue growth. Some of them have to be ingested with the diet, while others can be formed in the body from materials ordinarily available. One of the reactions in amino acid synthesis is enzymatic transamination. From an amino acid and a keto acid another amino acid can be made by enzymatic shift of the amino group. Glutamic-aspartic acid transaminase was studied in this institute. It proved to consist of a large protein moiety and a prosthetic group which was recognized as a derivative of vitamin B_6. This explains the need of higher organisms for this vitamin which is necessary for tissue growth and maintenance.

As important as proteins are nucleotides for cellular metabolism and growth. The constituents of nucleotides are purine or pyrimidine bases, pentose (ribose or desoxyribose), and phosphoric acid. We are rather well informed about the metabolism of the purines, but the origin and fate of ribose has so far remained obscure. Recent studies at the Anderson Hospital have shown that phosphorylations of ribose and rearrangement of the phosphate groups occur in a fashion similar to hexose metabolism. This gives hope to elucidate and eventually to control the abnormal nucleotide metabolism in malignant tissues which was described in the preceding paper.

MEDICAL OFFICERS RETURNING TO TEXAS*

(Corrections: Bucky L. Burditt, formerly of Dallas, has returned to Del Rio; Robert Hall Johnson, formerly Hamlin, to Snyder; Harl D. Mansur, Jr., formerly Big Spring, to Ardmore, Okla.; Willard B. Morell, formerly San Antonio, to Pendleton, Oregon; S. Perry Post, formerly Boerne, to San Antonio; and Edward S. Ross, listed Denison, to Dallas.)

NAME	Serv.†	Location	Release Date
Armstrong-Donley-Childress-Collingsworth-Hall Counties			
1. Jones, Elmer K.	A	Wellington	
Bell County			
11. DeBord, Bert A., Jr.	A	Temple	
Bexar County			
89. Dimmitt, Dean P.	A	San Antonio	
90. Dreibrodt, Ben A.	A	San Antonio	
91. Dufner, Romie M.	A	San Antonio	
92. Powell, J. C., Jr.	A	San Antonio	
Bosque County			
2. Shipp, John R.	A	Cranfills Gap	
Caldwell County			
3. DuBoise, Otho K.	A	Lockhart	
Cass-Marion Counties			
2. Brooks, Jesse M.	A	Atlanta	
Cherokee County			
3. Evans, Charles W., Jr.	A	Fastrill	
Clay-Montague-Wise Counties			
2. Mood, Francis A.	A	Nocona	
Comal County			
1. Bergfeld, A. W. C.		New Braunfels	
2. Karbach, H. E.	N	New Braunfels	
Coryell County			
2. Lowrey, Ernest E.	A	Gatesville	
Dallas County			
131. Alfieri, Anthony L.	A	Dallas	Mar., 1946
132. Block, Harold M.	A	Dallas	
133. Coggeshall, Howard C.	A	Dallas	
134. Freed, Harold	A	Dallas	
135. Leeper, Edward P.	A	Dallas	
136. Littell, George S.	A	Dallas	
137. Lyday, Victor I.	A	Dallas	
138. Simonson, Sigwert W.	A	Dallas	
El Paso County			
36. Basom, William C.	A	El Paso	
37. Breck, Louis W.	A	El Paso	
38. Readinger, Ivan H.	A	El Paso	
39. Snidow, Francis A.	A	El Paso	
40. Villareal, Leopoldo	A	El Paso	
Erath-Hood-Somervell Counties			
2. Barekman, W. H.	A	Stephenville	
Galveston County			
40. Griffin, Harold B.	A	Galveston[1]	
Harris County			
185. Asher, Harvey	A	Houston[2]	
186. Austraw, Henry H.	A	Houston	
187. Crawford, Ralph C.	A	Houston	
188. Dickens, W. M.	A	Houston	
189. Kaminsky, Peter B.	A	Houston[3]	
190. McKay, Haden E.	A	Humble	
191. Singleton, P. C. A.	N	Houston	Mar., 1946
Jefferson County			
42. Curry, D. W.	A	Port Arthur	Feb., 1946
Kerr-Kendall-Gillespie-Bandera Counties			
6. Ivey, Hubert T.	A	Legion	Feb., 1946
Kleberg-Kenedy Counties			
3. Mitchell, R. H.	A	Kingsville[1]	
Lamb-Bailey-Hockey-Cochran Counties			
3. Williams, Edward S.	N	Levelland	Jan., 1946
La Salle-Frio-Dimmit Counties			
4. Meyers, C. P.	A	Cotulla[2]	
Lavaca County			
5. Gray, Willis J.	A	Moulton	
Lubbock-Crosby Counties			
15. Jenson, Alfred J.	A	Lubbock	
McLennan County			
24. Jaworski, H. L.	A	Waco	May, 1946
25. Jenkins, Joseph N., Jr.	A	Waco	
Nacogdoches County			
3. Taylor, James G., Jr.	A	Nacogdoches[3]	May, 1946
Nueces County			
25. Gill, James P.	A	Corpus Christi	
26. Yeager, Franklin W.	A	Corpus Christi	Feb., 1946
Palo Pinto-Parker Counties			
7. Logsdon, Charles P. C.	A	Palo Pinto	
8. Wright, Harry E.	A	Mineral Wells	
Potter County			
19. Hooper, John M.	A	Amarillo[4]	Apr., 1946
20. Wyatt, Malcolm H.	A	Amarillo	
Randall-Deaf Smith-Parmer-Castro-Oldham Counties			
4. Conventry, William V.	A	Farwell[5]	
Reeves-Ward-Winkler-Loving-Culbertson-Hudspeth Counties			
3. Hanes, L. C., Jr.	N	Winkler	Mar., 1946
San Patricio-Aransas-Refugio Counties			
6. Koch, Alvis A.	A	Ingleside	
Tarrant County			
59. Borough, Lester D.	A	Fort Worth	
60. Crawford, William M.		Fort Worth	
61. Lindsey, David C.	A	Fort Worth	
62. McDonald, R. P.	N	Fort Worth	
63. Renshaw, Horace S.	A	Fort Worth	
64. Sheddan, Frank G., Jr.	A	Fort Worth	
Taylor-Jones Counties			
16. Hooks, Jim M., Jr.	A	Abilene	
17. Middleton, Edwin E.	A	Abilene	
Tom Green-Coke-Crockett-Concho-Irion-Sterling-Sutton-Schleicher Counties			
10. Gray, George A.	A	San Angelo[6]	
Travis County			
25. Frobese, Alfred S.	A	Austin	
26. Hahn, W. Burford	A	Austin	
27. Herrod, James H.	A	Austin	
28. Jordan, Robbie C.	A	Austin	
Wichita County			
12. Bohmfalk, Stanley W.	A	Wichita Falls	
13. Pierce, Alexander W.	A	Wichita Falls	
14. Rosenblatt, W.	A	Wichita Falls	
Williamson County			
5. Buchholz, Ransom R.	A	Georgetown	

*EDITOR'S NOTE: This list is the seventh of a series in which it is hoped to name all those physicians who have been in the Armed Forces during the war just passed and have now returned to Texas to resume civilian practice. The information in this list has been assembled from a variety of sources. While an attempt has been made to secure as complete and as accurate data as possible, we are aware that omissions and errors have been made. Not only for publication in the JOURNAL but also for the permanent records in the central office of the State Medical Association, we invite and urge correction of and addition to the material here submitted. Note that physicians from each county area are numbered consecutively following those listed in the April JOURNAL; the last number in each section therefore indicates the total physicians returned to that county area. The complete total for Texas named to date (April 25), including the accompanying list, is 1,155.

† A=Army; N=Navy; U=U. S. Public Health Service.

[1]Formerly of Fort Worth.
[2]Formerly of Crockett.
[3]Formerly of Dallas.
[1]Formerly of Plainview.
[2]Formerly of Baltimore, Md.
[3]Formerly of Dallas.
[4]Formerly of McKinney.
[5]Formerly of Temple.
[6]Formerly of Abilene.

HOSPITALS NEEDING INTERNS AND RESIDENTS

Methodist Hospital, Dallas. Capacity 206 beds. C. B. Fielder, Superintendent; (4 interns now).

Brackenridge Hospital, Austin. Capacity 225 beds. J. M. Coleman, M. D., Medical Director; (2 interns, July 1).

El Paso City County Hospital, El Paso. Capacity 192 beds. George W. Cook, Col., U. S. A., Ret., Superintendent; (3 interns for one year term, graduates of class A medical schools only, July 1).

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Galveston, May 6-9, 1946. Dr. H. F. Connally, Waco, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

American Medical Association, San Francisco, July 1-5, 1946. Dr. Roger I. Lee, Boston, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

Southern Medical Association. Dr. M. Y. Dabney, Birmingham, Ala., President; C. P. Loranz, Empire Building, Birmingham, Ala., Secretary-Manager.

Southwest Allergy Forum. Dr. George W. Owen, Jackson, Miss., Temporary President; Dr. A. H. Braden, 1910 Crawford St., Houston, Secretary.

Texas Association of Medical Anesthetists, Galveston, May 6, 1946. Dr. E. D. Embree, Houston, President; Dr. R. A. Miller, 1415 Nix Professional Building, San Antonio, Secretary.

Texas Association of Obstetricians and Gynecologists, Galveston. Dr. Allen McMurrey, Houston, President; Dr. Julius McIver, 714 Medical Arts Building, Dallas, Secretary.

Texas Chapter American College of Chest Physicians, Galveston, May 6, 1946. Dr. S. E. Thompson, Kerrville, President; Dr. Elliott Mendenhall, Dallas, Secretary.

Texas Club of Internists. Dr. Robert M. Barton, Dallas, President; Dr. Julian C. Barton, 414 Navarro St., San Antonio, Secretary.

Texas Hospital Association. Tol Terrell, Harris Memorial Methodist Hospital, Fort Worth, President; Miss Madelyne Sturdavant, 5709 Velasco, Dallas, Secretary.

Texas Neuropsychiatric Association, Galveston, May 6, 1946. Dr. Titus Harris, Galveston, President; Dr. Fred Rogers, Dallas, Secretary.

Texas Ophthalmological and Otolaryngological Society, Dallas, December, 1946. Dr. C. B. Williams, Mineral Wells, President; Dr. E. D. Dumas, San Antonio, Secretary.

Texas Orthopedic Society. Dr. E. A. Cayo, San Antonio, President; Dr. Edward Smith, Houston, Secretary.

Texas Pediatric Society, Fort Worth, October, 1946. Dr. Max Woodward, Sherman, President; Dr. John E. Ashby, Dallas, Secretary.

Texas Public Health Association, Austin, May 27-28, 1946. Dr. Lewis Dodson, University of Michigan, Ann Arbor, Mich., President; Mr. E. W. Sudderth, Sanitary Engineer, Court House, Dallas, Secretary.

Texas Radiological Society, January, 1947. Dr. Herman Klapproth, Sherman, President; Dr. R. P. O'Bannon, 650 Fifth Ave., Fort Worth, Secretary.

Texas Railway and Traumatic Surgical Association, Galveston, May 6, 1946. Dr. W. B. Reeves, Greenville, President; Dr. Ross Trigg, First National Bank Building, Fort Worth, Secretary.

Texas Society for Mental Hygiene. Dr. Jack R. Ewalt, University of Texas Medical Branch, Galveston, President; Mrs. Elizabeth F. Gardner, 1617 Watchhill Road, Austin 21, Executive Secretary.

Texas Society of Gastro-Enterologists and Proctologists, Galveston, May 6, 1946. Dr. James J. Gorman, El Paso, President; Dr. George M. Underwood, 4105 Live Oak Street, Dallas, Secretary.

Texas Society of Pathologists, Galveston, May 8, 1946. Dr. May Owen, Fort Worth, President; Dr. C. T. Ashworth, Southwestern Medical College, Dallas, Secretary.

Texas State Heart Association, Galveston, May 6, 1946. Dr. Victor E. Schulze, San Angelo, President; Dr. Walter B. Whiting, Wichita Falls, Secretary.

Texas Surgical Society, Dallas, October, 1946. Dr. G. V. Brindley, Temple, President; Dr. Walter Stuck, 1426 Nix Professional Building, San Antonio, Secretary.

Texas Tuberculosis Association, Houston, September 16-17, 1946. Dr. J. B. White, Amarillo, President; Miss Pansy Nichols, Austin, Executive Secretary.

Third Panhandle, District Medical Society, Lubbock, October 8-9, 1946. Dr. W A. Carroll, Claude, President; Dr. George Powers, Amarillo, Secretary.

Fourth District Medical Society, Brady, November, 1946. Dr. H. L. Locker, Brownwood, President; Dr. Glenn H. Ricks, Brady, Secretary.

Fifth and Sixth, Southwest District Society. Dr. Phil A. Bleakney, Harlingen, President; Dr. C. W. Tennison, San Antonio, Secretary.

Seventh, Austin, District Society. Dr. Robert B. Morrison, Austin, President; Dr. M. I. Brown, Austin, Secretary.

Eighth, Ninth and Tenth Districts Medical Society, Brenham, April 17, 1946. Dr. J. T. Tadlock, Dayton, President; Dr. George W. Waldron, Medical Arts Building, Houston, Secretary.

Eleventh District Society, Palestine, October, 1946. Dr. L. L. Travis, Jacksonville, President; Dr. C. B. Young, Tyler, Secretary.

Twelfth, Central Texas District Society, Corsicana, July, 1946. Dr. Thomas G. Glass, Marlin, President; Dr. H. F. Connally, Jr., Waco, Secretary.

Thirteenth, Northwest District Society. Dr. A. L. Roberts, Fort Worth President; Dr. Joe R. Wise, 1212 W. Lancaster, Fort Worth, Secretary.

Fourteenth District Society, Gainesville, June 11, 1946. Dr. C. B. Thayer, Gainesville, President; Dr. V. L. Tuck, Sherman, Secretary.

Fifteenth, Northeast Texas, District Society, October, 1946. Dr. Frank Littlejohn, Marshall, President; Dr. Henry H. Neihuss, Greggton, Secretary.

CLINICS

Post Graduate Medical Assembly of South Texas, Houston, December 3-5, 1946. Secretary, 229 Medical Arts Building, Houston.

THE AMERICAN ASSOCIATION FOR THE SURGERY OF TRAUMA

San Antonio will be host to the American Association for the Surgery of Trauma on June 26, 27, and 28, according to Dr. Charles S. Venable, San Antonio, member of the Council of the Association. Headquarters will be at the Plaza Hotel, but the program on Thursday afternoon, June 27, will be held at the School of Aviation Medicine at Randolph Field.

Tentative arrangements for the program include the following speakers and subjects:

Dr. Alexander P. Aitken, Boston—Ruptured Intervertebral Disks in Industry.
Dr. James Barrett Brown, St. Louis—Military Plastic Surgery.
Dr. John A. Hillsman, Winnipeg, Canada (to be read by proxy) —Some Observations on Penetrating Wounds of the Heart.
Dr. Drury Hinton, Philadelphia—The Arrest of Spreading Gas Gangrene by Oxygen Injection.
Drs. E. S. Gurdjian and H. R. Lissner, Detroit—A Method for Studying Quantitatively the Relationship between the Amount of Force Applied and the Direction and Amount of Deformation in Skulls.
Dr. Cecil E. Newell, Chattanooga, Tenn.—Treatment of Intertrochanteric Fractures.
Dr. John Paul North, Wynnewood, Pa.—Localized Clostridial Wound Infection and Gas Gangrene.
Dr. A. William Reggio, Boston—Reconditioning or Rehabilitation—Which?
Dr. Robert L. Rhodes, Augusta, Ga.—Tenosynovitis of the Forearm.
Dr. Albert O. Singleton, Galveston—Surgical Wounds of the Abdominal Wall with Their Favorable and Unfavorable Results.
Dr. J. Huber Wagner, Pittsburgh—Bone Graft of Ununited Fracture of the Tibia, by Lateral Approach.
Dr. James Spencer Speed, Memphis, Tenn.—Reconstructive Procedures in Difficult Types of Ununited Fractures.

The School of Aviation Medicine will provide exhibits depicting the pathology in animals subjected to abrupt deceleration, a hospital catastrophe room, training aids in aviation medicine, air evacuation aircraft and equipment, and various types of aircraft, and a complete tour of the school has been scheduled. A formal program at the school will include a welcome from the commandant and the following papers:

Investigation of the Mechanism of Injury due to Abrupt Deceleration—Capt. Robert F. Rushner.
Injuries Commonly Encountered in Casualties Surviving Aircraft Crashes—Capt. Robert R. Nixon.
A Plan for the Care of Crash Casualties—Lt. Col. Randolph L. Clark.

BLOOD CLOTTING IN HEART DISEASE

A preparation of spoiled sweet clover has been used successfully to delay clotting of the blood in patients with coronary thrombosis. Three investigators, comparing an untreated group with a treated group of patients, found that this drug reduced the death rate.

Writing in the February 16 issue of *The Journal of the American Medical Association*, the three investigators—H. Raymond Peters, M. D., J. Roy Guyther, M. D., and Charles E. Brambel, Ph. D., of Baltimore—say that of the 60 patients treated in the usual routine manner with bed rest, 13 died. Of the 50 treated with dicumarol, the spoiled sweet clover drug, only two died.

These 110 cases were studied during the last three years at Mercy Hospital in Baltimore. The investigators are from the Departments of Medicine and Clinical Biochemistry, Mercy Hospital Division, University of Maryland School of Medicine.

In coronary thrombosis a clot forms in one of the coronary arteries, or more frequently in one of the branches, and a portion of the heart muscle is deprived of blood for a length of time sufficient to do damage. The seriousness of the accident depends on the size and location of the branch blood vessel which is stopped up by the clot.

The authors say that they observed an increased clotting tendency in most of their cases of acute coronary thrombosis. Dicumarol, which was discovered when hemorrhagic disease was studied in cattle, reduces the occurrence of complications by delaying the clotting of the blood.

In conclusion the authors say that the drug can be administered for an indefinite time as ill effects were not noted.

TEXAS SURGICAL SOCIETY

The Texas Surgical Society held its spring semi-annual meeting April 1-2 at the Kyle Hotel, Temple. Special guest speakers were Dr. Louis Byars, professor of plastic surgery, Washington University Medical School, St. Louis, and Dr. R. L. Sanders, professor of Surgery, University of Tennessee Medical School, Memphis.

The scientific program follows:

APRIL 1

Wounds of the Heart—Asher McComb, San Antonio.
The Contact Splint—G. W. N. Eggers, Galveston.
The Diagnosis and Surgical Management of Cancer of the Colon—R. L. Sanders, Memphis, Tenn.
Papilloma of the Common Hepatic Duct (Case Report)—J. P. Barnes, Houston.
The Management of Burns—W. C. Tenery, Waxahachie.
The Early Rehabilitation of the Burned Patient—Louis T. Byars, St. Louis, Mo.
Reconstructive Procedures Used in an Army Plastic Center.
Part 1—Lt. Col. Thomas D. Cronin, Wakeman General Hospital, Camp Atterbury, Ind.
Part 2—Col. T. G. Blocker, Galveston.

APRIL 2

Primary Sarcoma in the Gastro-Colic Omentum—Jack Furman, Fort Worth.
Breast Incisions: Anatomical, Rational and Aesthetic—John T. Moore, Houston.
Surgical Treatment of Hemifacial Spasm—James Greenwood, Houston.
A New Operative Treatment of Elephantiasis—Edgar J. Poth, Galveston.

In a business session it was decided to hold the fall meeting in Dallas the first week in October. Entertainment features included luncheon, a cocktail party, and a formal dinner on April 1.

Drs. C. M. Simpson, chairman; G. V. Brindley, and M. W. Sherwood formed the local arrangements committee.

STREPTOMYCIN FOR CIVILIAN USES

All civilian inquiries and requests for streptomycin are to be sent to Dr. Chester S. Keefer, Evans Memorial Hospital, 65 East Newton, Boston, Mass., under an allocation program recently announced by the Civilian Products Administration. Dr. Keefer is Chairman of the Committee on Chemotherapeutic and Other Agents of the Division of Medical Sciences, National Research Council, and has been authorized to handle civilian requests, providing they are submitted by a physician giving sufficient technical information to enable him to decide whether streptomycin is indicated in the treatment of the case. Other agencies receiving allotments of the scarce drug include the Army, Navy, Veterans Administration, and the U. S. Public Health Service.

The CPA has announced that there will be no commercial distribution of streptomycin at this time, nor will the producers supply the drug directly for civilian requests. Physicians have been asked not to submit requests for streptomycin if the cases are susceptible to the action of the sulfonamides, penicillin, and other therapeutic agents.—S. G. O. Notes, March 15, 1946.

AMERICAN COLLEGE OF RADIOLOGY AND AMERICAN RADIUM SOCIETY

The American College of Radiology and the American Radium Society will meet in San Francisco, the former on June 29 and the latter on June 30 and July 1, announcements from the college indicate. This first annual meeting since 1944 will be held in the Palace Hotel, and persons who expect to attend are urged to arrange for reservations immediately. It is pointed out that the radiology meetings will be held immediately prior to the American Medical Association annual session, which opens in San Francisco on July 1.

GOVERNMENT-OWNED SURPLUS PROPERTY

Information regarding surplus property for sale through government agencies has been secured from the War Assets Administration and the U. S. Public Health Service. It is summarized below for the benefit of physicians who are veterans of World War II, nonprofit hospitals, and others who may be interested and who are eligible to purchase any of the available property.

VETERANS PREFERENCE

A veteran, defined as any person who served in the active military or naval service on or after September 16, 1940, and before the end of the present war and has been discharged or released under honorable conditions (including persons on terminal leave or final furlough and those whose status has been changed from "active" to "inactive"), has third preference in the purchase of surplus government goods. Federal agencies have first preference; state and local governments second.*

To secure certification for preference, a veteran must take or send his discharge papers, terminal leave papers, photostatic or certified copies of such papers, or other proof that he is a veteran of this war to the nearest War Assets Administration office. In Texas, offices are located at 507 Mercantile Bank Building, Dallas; 1006 Electric Building, Houston; 1904 Transit Tower, San Antonio; 420 Caples Building, El Paso; and 817 Texarkana National Bank Building, Texarkana. Office hours are from 8:30 a. m. to 5:15 p. m., Monday through Friday.

The veteran must present to WAA a description of the business, profession, or employment in which the surplus government property will be used and a list of the kind and quantities of property which he wishes to purchase. Veterans are allowed preference only if they desire to purchase property which will be used to establish or maintain their own small business, professional, or agricultural enterprise in which more than 50 per cent of the invested capital or net income is owned by or accrues to a veteran or veterans, or if they are required by their employment to have their own tools and equipment.

Provided the above conditions are met, WAA will furnish a statement indicating that the veteran has preference rights to buy government surplus property and listing the kind and quantity of property desired. Actual purchase is carried out with the government agency holding surplus property.

*EDITOR'S NOTE: An amendment to the Surplus Property Act, which became effective May 3, changed the order of preference for the purchase of surplus government goods. Various items including x-ray equipment, diathermy apparatus, operating tables, typewriters, desks, automotive equipment up through two and a half ton trucks (including passenger automobiles, jeeps, and small trucks), and other equipment necessary for establishing a medical practice or a business have been set aside for *exclusive* purchase by veterans of World War II, thus making available to them items previously made scarce through purchase by other persons and agencies. For items not set aside exclusively for veterans, the new order of preference is as follows: (1) federal agencies, (2) veterans of World War II, (3) Reconstruction Finance Corporation for use by small businesses, (4) state and local government agencies, (5) nonprofit and nontaxable institutions.

If the items he wishes to purchase are available when his preference certificate is presented to the disposal agency, the veteran is notified as to the location, price, and time allocated for inspection and completion of the sale. If not available, he is notified when the items do become available. Arrangements for purchase, payment, and delivery are made with the disposal agency.

The veteran may inspect the items he wishes to purchase, but all sales are on an "as is, where is" basis, with no warranty, expressed or implied, except as to title.

Veterans may buy for cash, or they may obtain credit directly from any loan agency selected, if they are qualified. Prices are fixed by the disposal agencies at a fair value which does not exceed the lowest price which is offered to commercial buyers and which is in accordance with OPA regulations.

The War Assets Administration establishes the minimum and maximum limits as to the value and quantity of property which may be purchased on preference by any veteran. The veteran may purchase up to $25,000 without any special approval. From $25,000 to $50,000, approval must be obtained from the Regional director. Anything over $50,000 must be approved by the Washington Office of the War Assets Administration. After exercising his preference he may nevertheless buy more, but in doing so he has no preference for the excess and is on the same level as other citizens. A veteran may purchase surplus property directly from the disposal agencies without exercising preference, if he is included in the class of buyers to whom the disposal agency is offering such property. Lists of inventories offered for preference purchase are available upon request to WAA.

Surplus property of the following types may be purchased by a veteran on preference: consumer goods (clothing, textiles, household and office equipment, automobiles, trucks, tires, hardware, surgical and medical equipment, photographic equipment, store fixtures, and so forth) and capital and producers goods (raw materials, machinery, transportation equipment, and so forth). He may not use his preference to buy real property or property for his personal use. An initial stock of property for resale within reasonable limits may be purchased on preference.

Disposal to Public Health Agencies

Eligible public health claimants are allowed a 40 per cent discount from the "fair value" of property available as surplus, fair value being defined as the lowest price prevailing at any trade level at the time of the transaction. State, county, and local health departments and units; state, county, and local sanitation departments and units; hospitals operated by nonfederal government agencies; nonprofit hospitals, clinics, and public health research organizations; nonprofit or tax supported schools of nursing, medicine, public health, dentistry, and pharmacy, and miscellaneous nonprofit groups organized primarily to promote the public health are eligible for the discount. If there is a question of eligibility, the fact of having been held tax-exempt under section 101(6) of the United States Internal Revenue Code is evidence of eligibility. The Public Health Service maintains a list intended to include the names of all claimants eligible for a discount, and applicants are invited to check with the public health specialist, War Assets Administration, Fort Worth, to be sure of their eligibility.

Regional offices of the War Assets Administration upon request will place names on the mailing list to receive lists of property available for sale. Separate offices are maintained for consumer goods (finished products ordinarily used by individuals or commercial establishments, including medical and hospital supplies, construction machinery, farm machinery, motor vehicles) and for capital goods (items used in industry and manufacture, and communication property). Claimants in Texas who wish to buy consumer goods should request notification of offerings suitable to their needs from the Agency Manager, War Assets Administration, Texas and Pacific Passenger Building, P. O. Box 1407, Fort Worth. Those interested in lists of capital goods available should inquire at the War Assets Administration regional offices at 2001 McKinney Avenue, Dallas; 1020 McKinney Avenue, Houston; or Transit Tower Building, South St. Mary Street at Billita Street, San Antonio. Inquiries concerning availability of surplus foods should be addressed to the U. S. Department of Agriculture, Production and Marketing Administration (Attention: Surplus Property), Washington 25, D. C. All requests for lists of available property should specify the particular classes of goods in which the applicant is interested.

To buy consumer goods listed as available by the disposal agency, the claimant may use his usual purchase order form in quadruplicate, drawn to the office of the disposal agency listing the property. It should request only items that appear in any one list and should be prepared according to sales conditions accompanying the offering by the disposal agency. On the body of the order the buyer should state, "Funds are available for the purchase of these items at fair value less 40 per cent." The disposal agency will normally accept only a formal purchase order. In emergencies, however, the disposal agency will accept a "letter of intent," indicating that the applicant is willing to purchase the specific items requested, to be followed at the earliest practicable date by the claimant's formal purchase order.

To buy capital goods, the claimant's usual purchase order form in quadruplicate may be used as outlined above, but the disposal agency will accept a letter of intent. It is not essential that capital goods requested be contained in a published list of available property.

In applying for a discount, the claimant should prepare in duplicate an application containing the following parts: (1) a request that a 40 per cent discount be approved for the accompanying purchase order; (2) a statement that "the applicant represents and warrants that it is an instrumentality or a nonprofit institution as defined in SPA Regulation 14, that the property ordered in the attached purchase document is required for its own use and to fill its own existing need for carrying on medical, public health, or sanitation activity, that the property will not be resold within one year of the date of the purchase without the consent in writing of the disposal agency"; (3) a statement which will show the ways in which and the extent to which the public health will be benefited by the applicant's use of the property being ordered, including how and to what extent the volume or quality of service will be increased and why the area served by the claimant needs such an increase; and (4) signature and title of a responsible official.

The two copies of the application for discount and the four copies of the purchase order or letter of intent to purchase should be taken or sent to the Special Representative, U. S. Public Health Service, % War Assets Administration, Texas and Pacific Passenger Building, P. O. Box 1407, Fort Worth. If on the basis of eligibility and need the discount is authorized, the Public Health Service representative will send the order directly to the disposal agency to be filled or will return it to the claimant upon his request so that he may inspect or select property and present the order in person at the time of the sale.

Terms of payment are prescribed in conditions of sale issued by the disposal agency to accompany offerings of property.

To purchase items listed in the Surplus Reporter, which covers items located outside of the State of Texas, the purchase order and application for discount should be prepared as described above, but the order should be sent direct to the office serving the territory in which the item is located. Do not put on the same purchase order items listed as available in the Seattle Region, the Chicago Region, and the Kansas City Region.

The capital goods offices at Dallas, San Antonio, and Houston are being staffed to handle consumer goods (which includes medical and hospital items) and the Fort Worth office will make allocations to these offices. Just how soon the change over will become effective is a matter of conjecture, but it will probably be within two or three months.

LICENSING OF HOSPITALS PROPOSED

To protect the public and hospitals themselves from poor services and inadequate facilities, state licensing of all general hospitals was proposed to officers of hospital organizations by Dr. Charles Wilinsky, administrator of Beth Israel Hospital in Boston and chairman of the American Hospital Association's Committee on Model Licensure Law. Representing hospitals in the United States and Canada, through state, regional, and provincial hospital associations, the group met to discuss problems and exchange ideas in the Mid-Year Conference of the Association in Chicago February 8 and 9.

"Ten states now have licensing laws for general hospitals," stated Dr. Wilinsky. "Six failed to pass similar laws in 1945. In many states, under prevailing conditions, almost any institution offering bed care may term itself a 'hospital.' The American Hospital Association, by formulating a model bill incorporating the best features of many laws now in force, hopes to encourage the adoption of general hospital licensing laws in all states. Such laws, to be effective, must be accompanied by a provision for adequate funds to provide regular hospital inspection by a competent staff of state or hospital personnel."

The care of veterans in community hospitals was voted all possible coöperation by the group. "Already several hundred hospitals in the nation have contracted with the Veterans Administration to care for male veterans with service-connected disabilities and for female veterans," said John N. Hatfield of Philadelphia, chairman of the Council on Government Relations. To facilitate immediate care for these men and women in their own communities and to ease the load on veterans hospitals, the Association has agreed to furnish as many as 20,000 civilian hospital beds by September, 1946. A resolution was passed approving the principle of utilizing an intermediary agency to handle the fiscal relationships between the Administration and the hospital rendering the service. The Michigan Hospital Service (Blue Cross) is performing this service in that state.

Resolutions proposing that hospitals make staff positions available to returning veteran physicians as soon as possible and urging the continued service of volunteers in civilian hospitals in view of sustained nursing shortages were passed by the group.

Employee pension plans, nurse relations, and the expansion of medical and Blue Cross voluntary prepayment plans were discussed among hospital and hospital association problems and progress.

HEALTH EDUCATION FELLOWSHIPS

Fellowships for one year of graduate study in health education, leading to a master's degree in public health, are being offered to qualified men and women by the U. S. Public Health Service through funds made available by the National Foundation for Infantile Paralysis. The training includes an academic course of eight or nine months and three months of supervised field experience in community health education. A stipend of $100 per month, plus tuition and travel expenses for the field experience, will be allowed.

Effective for the academic year starting in the fall of 1946, fellowships are open to men and women between the ages of 22 and 40, including veterans. Applications must be in the office of the Surgeon General, U. S. Public Health Service, Washington 25, D. C., not later than June 1 to be considered.

These fellowships are not available to employees of health departments, and the sponsors assume no responsibility for placing fellows in positions.

STATE MEDICAL BOARD EXAMINATIONS

The Texas State Board of Medical Examiners will hold an examination session in Dallas, June 11, 12, and 13, at the Baker Hotel, Dr. T. J. Crowe, secretary, has announced.

NICOTINE CONTENT OF CIGARS AND CIGARETS

"Thirty cigarets, weighing about one gram apiece and containing about 2 per cent nicotine in the tobacco, might contain just about the same amount of nicotine as six cigars weighing about 5 grams apiece and with the same nicotine content," the March 23, 1946, issue of *The Journal of the American Medical Association* says in answer to an inquiry. Continuing, *The Journal* says in part:

"About one fourth of the nicotine content of the tobacco may be expected to appear in the puffed smoke, though this figure may vary greatly, depending on the manner of smoking. Only about 12 per cent of the nicotine escapes with the exhaled smoke after inhalation, as compared with about 33 per cent after simple puffing without inhalation, but in either case the bulk of the nicotine appears to be deposited in the mouth or air passages. Accordingly, it might be possible for the thirty cigarets inhaled to yield about the same amount of nicotine absorption as the six cigars not inhaled.

"Since either cigarets or cigars may vary greatly in their nicotine content, however, and the latter especially may vary greatly in size, and both may be smoked at widely different rates and with the discarding of greatly different amounts of tobacco and retained constituents of the smoke in the unburned stumps, this conclusion required much caution. Moreover, much nicotine may be absorbed from the unburned stump of a cigar by the user who chews or sucks as he smokes, while on the other hand the habitual spitter may rid himself by expectoration of some of the nicotine taken in.

"The nicotine discussed is the chief factor found in cigaret or cigar smoke which may be expected to affect the normal heart, with the production of changes in rate and rhythm and even in electrocardiographic patterns in some cases. Carbon monoxide in the smoke would be greater in the cigar smoke than in the cigaret smoke but rarely sufficient to produce symptoms. The same is generally true of the other constituents of tobacco smoke."

POLISH INFANTS UNDERWEIGHT

The low standard of feeding in Poland has resulted in an average decrease of 30 per cent in the weight of newly born babies, according to a dispatch from the UNRRA Health Division representative in Warsaw. Added to this is the alarming fact that infant mortality has gone up from 12.4 per cent to 27 per cent and in some places near the German border, to 50 per cent.

The effect of malnutrition added to the conditions of life where whole families are crowded into a single room, often amid ruins, accounts for the rise of tuberculosis among children. In Warsaw, the

Pirquet test gave positive results in 84 per cent of the children, and 50 per cent of them were active cases. Tests have been carried out by the Ministry of Health in all the children's institutions, and although the incidence of the disease varied considerably in different localities, the general increase was substantially the same.

However, the number of clinics and orphanages in Warsaw has doubled in the last two months, and now there is some hope for such children. In most of the emergency homes for orphans and destitute waifs early last winter the only bedding was straw and there was no milk. Now, with extensive help from UNRRA supplies, children both in the institutions and in schools are given some food, warmth, and clothing.

Throughout Poland the Ministry of Health is conducting a drive to lower the infant mortality rate and the percentage of tuberculosis cases among children. Expectant mothers are being taught how to get the most value from the food available and how to care for themselves. Children are being fed in school, and used clothing, delivered by UNRRA, is distributed quickly and efficiently among them.

CHEST EXAMINATIONS OF DISPLACED PERSONS

Mobile x-ray units operated by UNRRA and the International Red Cross have begun a survey of chest conditions of the 400,000 displaced persons in UNRRA assembly centers in the U. S. Zone of Germany, according to information reaching United Nations Relief and Rehabilitation headquarters in Washington.

Two teams, consisting of a doctor and three Red Cross technicians, using UNRRA mobile microfilm x-ray units carried in ambulances, are making this survey, as a result of which UNRRA will be enabled to locate and treat individuals with tuberculosis. UNRRA hospitals in the U. S. Zone now have 1,000 beds for tuberculosis patients and more beds are on the way.

In addition to the mobile teams now operating, UNRRA is providing personnel and equipment for six semi-permanent microfilm stations in the zone and one x-ray unit is being set up for UNRRA personnel.

LITTLE DANGER FROM IMPORTED DISEASE

There is little or no risk of introducing foreign disease into the United States through returning military personnel from abroad, according to an announcement by the Office of The Surgeon General, which pointed out that the most careful estimates anticipate only moderate danger in a few cases. This conclusion was reached after a world-wide survey by the Interdepartmental Quarantine Commission, which was jointly established by the Secretaries of War and Navy and the Administrator of the Federal Security Administration to study this problem.

With the end of the war and return of the bulk of combat forces, it is now possible to review actual results on a preliminary basis. Though tentative, highly optimistic conclusions appear warranted, the announcement stated. To date no acute outbreak or secondary spread of an imported disease has been reported. While more slowly evident diseases may be identified later, it should be remembered that the traffic of war has gone on for four years, giving ample time for discovery of such diseases.

The 440,000 hospitalizations for malaria reported among Army personnel during the war fall short of pessimistic predictions for what has proved to be the commonest infectious disease of troops abroad. Even with the consideration that a portion of infected persons are liable to recurrence after their return to the States, conditions in this country are generally unfavorable for the spread of malaria and the chances of community risk are very small. The special danger of cholera, smallpox, plague, epidemic typhus, and yellow fever is a matter of historical record. Immunizations were employed against all these diseases by the Armed Forces along with water purification, environmental sanitation, and disinfestation and insect control. This preventive medicine program was exercised even under combat conditions and its effectiveness was shown by Army records. The high general level of sanitation, insect control, and alert medical care available here forms the final link in the protection of this country from imported diseases.

The risk of importing disease from abroad has been less in some respects than in normal prewar traffic and the credit for these results has been attributed to the modern preventive medicine program of the Army and Navy.

Cases of exotic disease did occur, the announcement stated, but extensive investigation of likely hazards and critical application of preventive and corrective measures were effective in reducing risks to small proportions.—S. G. O. Notes, March 31, 1946.

FLEA ANTIGEN BENEFICIAL

Flea antigen, a substance which produces immunity to flea bites, has benefited four out of five of the 129 susceptible infants and children treated on the West Coast, according to Alexander Hatoff, M. D., of Oakland, Calif.

Writing in the March 30, 1946, issue of *The Journal of the American Medical Association*, Dr. Hatoff, who is from the Department of Pediatrics of the Permanente Foundation Hospitals, says that the beneficial results consisted in a smaller size and shorter duration of the wheal and the decrease of irritation and of itching.

The flea antigen consists of an extract of the whole fleas of cat, dog, and human beings.

According to the report, the children's symptoms had continued unabated for a period of from one week to one year before treatment was begun. One hundred of the patients, or 78 per cent, were benefited. Six patients, or 5 per cent of the total, received a certain amount of benefit, and 23, or 17 per cent, failed to respond.

Dr. Hatoff states that in treating these patients, the average number of injections of flea antigen given was four. The average time of response following the initial injection was eight days.

In conclusion, the author says that the importance of this demonstration lies in the possibility that such a method might be used in conjunction with other measures for the control of insect borne diseases.

PENICILLIN TREATMENT OF OSTEOMYELITIS

In the future penicillin treatment of osteomyelitis will eliminate in some cases the marring and mutilation resulting from surgery, according to two investigators writing in the March 30, 1946, issue of *The Journal of the American Medical Association.*

Edwin J. Grace, M. D., from the Grace Clinic, Brooklyn, and Vernon Bryson, Ph. D., from the Biological Laboratory, Cold Spring Harbor, N. Y., say that the treatment consists of hospitalizing the patient for ten days during which injections of penicillin are administered every three hours, day and night, into the cavity which leads to the infected area of bone and into the muscles.

Certain measures must be taken, however, before this type of therapy can be employed, the authors state. The patients must have a complete physical examination with correction of any obvious deficiencies such as anemia or focal infections such as

tonsillitis. Bad teeth must be extracted and cavities filled.

Of the 7 chronic osteomyelitis patients who received this treatment, only 1 failed to respond. These patients had previously undergone a total of 91 operations without cure.

IRON DEFICIENCY ANEMIA

Iron deficiency anemia is frequently confused with vitamin B complex deficiencies, according to William J. Darby, M. D., of Nashville, Tenn., writing in the March 30, 1946, issue of *The Journal of the American Medical Association.*

Dr. Darby, who is from the Department of Medicine, Vanderbilt University School of Medicine, presents the case reports of 6 patients who showed no abatement of symptoms after treatment with B vitamins. These same patients were then treated with iron and almost immediate improvement was noted.

EYE BANKS FOR CORNEAL GRAFTS

Between 10,000 and 15,000 blind persons who need corneal graft operations can be helped by eye banks which are being established all over the country.

Writing in the May issue of *Hygeia,* Mrs. Henry Breckinridge, Executive Director of The Eye-Bank for Sight Restoration, Inc., in New York, says that the "purpose of this bank is to collect and preserve healthy corneal itssue from human eyes to be transplanted to blind persons who have lost their sight because of corneal defects." It is a nonprofit group.

Regretting that "at the present time, corneal tissue taken from a living or dead person may be stored for only three days before it is transplanted," the author states that "it is hoped that through research a prolonged method of preservation may be learned."

Although there are approximately 250,000 blind men, women and children in the United States, a corneal graft operation is successful only when the rest of the eye and optic nerve are normal.

A. M. A. COUNCIL REPORTS

COUNCIL ON PHARMACY AND CHEMISTRY

NEW AND NONOFFICIAL REMEDIES

The following additional articles, have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application.

AUSTIN SMITH, M. D., *Secretary.*

Contraceptive Jellies and Creams (See New and Nonofficial Remedies, 1945, p. 355).

The following articles have been accepted:

DUREX PRODUCTS, INC., NEW YORK

Lactikol Creme: A water dispersible nonfatty stearic acid and glyceryl monostearate cream, having a *p*H of 4.9, prepared from the formula:

	Per Cent
Stearic acid	15.00
Glyceryl monostearate	7.50
Glycerin	8.00
Glyceryl monoricinoleate	1.50
Sodium lauryl sulfate	0.50
Lactic acid	0.50
Perfume	0.07
Water sufficient to make	100.00

Actions and Uses.—(See article Contraceptive Jellies and Creams.)

Dosage.—5 cc.

Lactikol Jelly: A water soluble jelly formed from tragacanth, karaya and acacia, having a *p*H of 4.15, prepared from the formula.

	Per Cent
Tragacanth	2.70
Karaya	1.00
Acacia	1.00
Lactic acid	1.50
Glycerin	16.00
Glyceryl monoricinoleate	1.00
Sodium lauryl sulfate	0.20
Butyl ester of parahydroxy benzoic acid	0.02
Oxyquinolin sulfate	0.05
Perfume	0.04
Water sufficient to make	100.00

Actions and Uses.—(See article Contraceptive Jellies and Creams.)

Dosage.—5 cc.

Syringe Applicators for Contraceptive Jellies and Creams (See New and Nonofficial Remedies, 1945, p. 357).

The following articles have been accepted:

DUREX PRODUCTS, INC., NEW YORK

Lactikol Plunger Applicator: A transparent plastic tube threaded at the blunt intravaginal end to screw onto the tubes of Lactikol Creme and Jelly to permit filling by compression of the tube. The full capacity is 5 cc., the recommended dose.

Lactikol Metri-Dose Applicator: A transparent glass tube graduated to permit delivery of from 5 to 8 cc., slightly constricted at the intravaginal end to permit filling, and fitted at the distal end with a rubber compression bulb with central wire spring device to permit adjustment of the volume of jelly or cream to be delivered.

Thiamine Hydrochloride (See New and Nonofficial Remedies, 1945, p. 610).

The following additional dosage form has been accepted:

SCHIEFFELIN & CO., NEW YORK

Tablets Thiamine Hydrochloride: 3 mg.

Ascorbic Acid (See New and Nonofficial Remedies, 1945, p. 622).

The following additional dosage form has been accepted:

SCHIEFFELIN & CO., NEW YORK

Tablets Ascorbic Acid: 100 mg.

Hexestrol (See New and Nonofficial Remedies, 1945, p. 435).

The following dosage form has been accepted:

ORTHO PRODUCTS, INC., LINDEN, N. J.

Tablets Hexestrol: 1 mg. and 3 mg.

—J. A. M. A., Jan. 26, 1946.

Monomestrol.—Mestilbol.—Diethylstilbestrol monomethyl ether.—3-*p*-Hydroxphenyl-4-*p*-methoxyphenyl-3-hexene.—*a*,*a*′-Diethyl-4′-methoxy-4-stilbenol.—$C_{19}H_{22}O_2$ (Molecular weight 282.37). Monomestrol may be prepared by methylation of diethylstilbestrol or by partial demethylation of the dimethyl ether of diethylstilbestrol. The crude product may be purified by distillation in vacuum and recrystallization from water-alcohol or from benzene-petroleum ether mixtures.

Actions and Uses.—Monomestrol is used for the same conditions for which estrogenic substances are employed, and the contraindications are essentially the same. Like other estrogens, it must be individualized since each patient presents special problems. Patients undergoing treatment should remain under constant medical supervision. Side effects are rare, but when they do occur they are usually mild, although in a few instances it may be necessary to reduce the dosage temporarily.

Dosage.—The average oral dose for the treatment of menopausal symptoms is 0.5 to 1 mg. daily by mouth, although if necessary 10 to 25 mg. may be given parenterally biweekly. Dosage for atrophic genital disorders such as kraurosis vulvae include

1 to 5 mg. daily by mouth or 25 mg. weekly by parenteral injection; for gonorrheal vaginitis of children 0.25 mg. daily; for the prevention of breast engorgement 5 to 10 mg. daily or 25 mg. the first and third days by injection; for suppression of lactation 10 mg. two or three times daily, or 25 mg. daily by injection; for prostatic cancer 2.5 mg. three times daily by mouth. The duration of treatment varies and may last for several months or even two or three years in the treatment of the menopause, a few weeks for gonorrheal vaginitis in children, a few months for atrophic genital disorders, three to five days for prevention of breast engorgement and suppression of lactation or be continuous for prostatic cancer.

Tests and Standards.—

Monomestrol occurs as an odorless, white, crystalline powder, which melts at 116-117.5 C. when recrystallized from benzene-petroleum ether (112-114 C., when recrystallized from alcohol). It is soluble in alcohol, freely soluble in acetone and in ether and practically insoluble in water, in dilute mineral acids and in dilute aqueous solutions of sodium and potassium hydroxide. It may be dissolved in vegetable oils and in dilute solutions of sodium or potassium hydroxide in 50 per cent ethanol.

To 1 mg. of monomestrol dissolved in 5 cc. of alcoholic potassium hydroxide add diluted hydrochloric acid to neutralize the solution and then add 1 cc. in excess. Add 1 cc. of molybdophosphotungstate reagent and shake. Allow to stand ten minutes, dilute to 25 cc. with water and add 5 cc. of saturated sodium carbonate solution: a blue color develops on standing. Add a few drops of 50 per cent solution of antimony pentachloride in dry *alcohol-free* chloroform to a dilute solution of monomestrol in the same solvent: a red colored solution is produced which changes rapidly to purple *(distinction from hexestrol, which gives no color).*

Dissolve 10 mg. of monomestrol in 5 cc. of concentrated sulfuric acid: an orange color is produced which disappears on dilution with water *(distinction from hexestrol and benzestrol, which give no color).*

Dry an accurately weighed specimen of monomestrol at 100 C. for four hours: the loss does not exceed 0.5 per cent. Ignite an accurately weighed specimen of monomestrol after the addition of concentrated sulfuric acid: the sulfated ash residue is not more than 1 per cent.

Transfer 0.1 Gm. of monomestrol to a 100 cc. volumetric flask and dilute to the mark with carbon tetrachloride. Transfer 10 cc. of the solution to a 250 cc. iodine flask fitted with an accurately ground stopper; add the calculated quantity plus 1 cc. of tenth-normal bromidebromate solution (prepared according to the U. S. P. XII, p. 749); wash the walls of the flask and wet the stopper by the addition of 10 cc. of distilled water. Quickly add 10 cc. of 10 per cent hydrochloric acid and insert the wet stopper. Shake the mixture thoroughly for several minutes, then set aside in the dark at 30 C. and shake intermittently for exactly fifty minutes. At the end of this period place 2 cc. of 40 per cent potassium iodide solution around the stopper. Remove the stopper just enough to allow the potassium iodide solution to enter the flask, shake thoroughly, rinse the stopper and sides of the flask with distilled water, add 25 cc. of carbon tetrachloride and titrate with fiftieth-normal sodium thiosulfate to the disappearance of the pink color in the carbon tetrachloride. Each cubic centimeter of tenth-normal bromide-bromate solution is equivalent to 4.706 mg. of monomestrol. The monomestrol content is not less than 99 per cent. *The nature of the reaction between bromine and monomestrol leads to complications unless the conditions of a given procedure are strictly observed. This method of standardization must be considered tentative until more accurate analytic procedures are available.*

The following dosage forms have been accepted:

WALLACE & TIERNAN PRODUCTS, INC., BELLEVILLE, N. J.

Tablets Monomestrol: 0.25 mg., 0.5 mg., 1.0 mg., 2.5 mg. and 5.0 mg.

Solution Monomestrol 10 mg. and 25 mg. per cc. (in Sesame Oil): 1 cc. ampuls.

Procaine Hydrochloride (See New and Nonofficial Remedies, 1945, p. 97).

The following dosage form has been accepted:

GEORGE A. BREON & CO., INC., KANSAS CITY, MO.

Solution Procaine Hydrochloride 2% W/V: 30 cc. vials. Each cubic centimeter contains 20 mg. procaine hydrochloride in isotonic solution of sodium chloride with chlorobutanol 0.5 per cent as a preservative.

Pertussis Vaccine Combined with Diphtheria Toxoid (See J. A. M. A., Jan. 5, 1945, p. 31.)

The following dosage form has been accepted:

PARKE, DAVIS & CO., DETROIT

Diphtheria Toxoid-Pertussis Vaccine Mixed (Sauer): 6 cc. vials (one immunization) and 24 cc. vials (four immunizations).

—J. A. M. A., Feb. 23, 1946.

Procaine Hydrochloride (See New and Nonofficial Remedies, 1945, p. 97).

The following additional dosage forms have been accepted:

THE WM. S. MERRELL CO., INC., LOESER LABORATORY DIVISION, NEW YORK

Solution Procaine Hydrochloride 1% W/V: 30 cc. and 100 cc. Each cubic centimeter contains procaine hydrochloride 10 mg. in isotonic solution of sodium chloride with chlorobutanol 0.5 per cent as a preservative.

Solution Procaine Hydrochloride 2% W/V: 30 cc. and 100 cc. Each cubic centimeter contains procaine hydrochloride 20 mg. in isotonic solution of sodium chloride with chlorobutanol 0.5 per cent as a preservative.

Pertussis Vaccine Combined with Diphtheria and Tetanus Toxoids (See J. A. M. A., Jan. 5, 1946, p. 31.)

The following dosage form has been accepted:

SHARP & DOHME, INC., GLENOLDEN, PA.

Diphtheria-Tetanus-Pertussis Antigens Combined, Alum Precipitated: One 3 cc. vial (one 3 dose immunization) and one 10 cc. vial (three 3 dose immunizations). Preserved with phenylmercuric nitrate 1:50,000.

Diethylstilbestrol (See New and Nonofficial Remedies, 1945, p. 428.)

CARROLL DUNHAM SMITH PHARMACAL COMPANY, ORANGE, N. J.

The following dosage forms have been accepted:

Diethylstilbestrol (in Peanut Oil): 1.0 mg. per cc.: 1 cc. ampuls.

Tablets Diethylstilbestrol: 0.1 mg., 0.5 mg., 1.0 mg., and 5.0 mg.

Penicillin (See New and Nonofficial Remedies, 1945, p. 214).

The following dosage form has been accepted:

WINTHROP CHEMICAL CO., INC., NEW YORK

Penicillin Calcium: Vials containing 100,000 or 200,000 units.

—J. A. M. A., Mar. 2, 1946.

Percomorph Liver Oil (See New and Nonofficial Remedies, 1945, p. 637).

The following additional dosage form has been accepted:

MEAD JOHNSON & COMPANY, EVANSVILLE, IND.

Oleum Percomorphum with Other Fish Liver Oils and Viosterol: 10 cc. bottles.

Mannitol Hexanitrate (See New and Nonofficial Remedies, 1945, p. 334).

The following dosage form has been accepted:

E. R. SQUIBB & SONS, NEW YORK

Tablets Mannitol Hexanitrate: 16 mg. and 32 mg.

Gold Sodium Thiosulfate (See New and Nonofficial Remedies, 1945, p. 175).

The following additional dosage form has been accepted:

MERCK & CO., INC., RAHWAY, N. J.

Gold Sodium Thiosulfate: 75 mg. bottles.

Thiamine Hydrochloride (See New and Nonofficial Remedies, 1945, p. 610).

The following additional dosage form has been accepted:

MEAD JOHNSON & COMPANY, EVANSVILLE, IND.

Tablets Thiamine Hydrochloride: 5 mg.

Bacterial Vaccine made from Hemophilus Pertussis (See J. A. M. A., Jan. 5, 1946, p. 31).

The following dosage form has been accepted:

PARKE, DAVIS & CO., DETROIT

Pertussis Vaccine, Immunizing (Sauer): 6 cc. and 24 cc. vials. 15,000 million H. Pertussis per cubic centimeter.

Riboflavin (See New and Nonofficial Remedies, 1945, p. 614).

The following additional dosage form has been accepted:

ABBOTT LABORATORIES, NORTH CHICAGO, ILL.

Tablets Riboflavin: 10 mg.

Sulfathiazole Sodium (See New and Nonofficial Remedies, 1945, p. 213).

The following dosage form has been accepted:

ABBOTT LABORATORIES, NORTH CHICAGO, ILL.

Sterile Sodium Sulfathiazole Anhydrous: 5 Gm. ampuls.

Ascorbic Acid (See New and Nonofficial Remedies, 1945, p. 622).

The following dosage form has been accepted:

MCKESSON & ROBBINS, INC., BRIDGEPORT, CONN.

Tablets Ascorbic Acid: 25 mg., 50 mg. and 100 mg.

—J. A. M. A., Mar. 9, 1946.

CHLOROQUINE, NONPROPRIETARY NAME FOR SN 7618

The Board for Coördination of Malarial Studies has requested the Council on Pharmacy and Chemistry to give consideration to the recommendation of a nonproprietary name for a new antimalarial compound known so far as SN 7618. It has the chemical structure of 7 chloro-4 (4-diethylamino-1-methylbutylamino) quinoline. Chloroquine has been proposed as the nonproprietary name.

The Council has been informed that the compound is covered by a German patent which has been assigned to the Winthrop Chemical Company, although all of the work in developing its antimalarial properties and usage has been done by the government contractors working under the Office of Scientific Research and Development. The Council has been cognizant of the value of the coöperative studies which have been undertaken during the war. It feels that every effort should be made to encourage this and similar work and to make available as soon as seems expedient the results of the studies so that they may be applied for the good of humanity. The adoption and use of appropriate nonproprietary names for truly useful drugs would seem to be a step in this direction.

The Council has voted to recognize Chloroquine as a nonproprietary name for the antimalarial substance sometimes described as SN 7618.

—J. A. M. A., Mar. 23, 1946.

COUNCIL ON PHYSICAL MEDICINE

The Council on Physical Medicine has authorized publication of the following reports.

HOWARD A. CARTER, *Secretary.*

HOLMSPRAY ATOMIZER AND NEBULIZER ACCEPTABLE

Manufacturer: T. J. Holmes Co., Inc., Chartley, Mass.

The Holmspray Atomizer No. 605 is a device for applying medicaments to the nose and throat. It is an all glass atomizer adapted for spraying oils, aqueous solutions and alcoholic solutions, especially designed for disseminating compounds which affect metals or are affected by contact with metals. The device is equipped with a rubber bulb to create pressure and gives a direct, relatively heavy spray.

The Holmspray Nebulizer No. 630 is different from the Holmspray Atomizer in that it produces a finely disseminated, almost invisible vapor designed to reach more distant parts of the respiratory tract. Like the Atomizer, it is all glass and is designed for compounds which affect metals or are affected by contact with metals. It is equipped with a rubber bulb.

The Council on Physical Medicine voted to accept the Holmspray Atomizer No. 605 and the Holmspray Nebulizer No. 630 for inclusion in its list of accepted devices.

BELTONE MONO-PAC HEARING AID ACCEPTABLE

Manufacturer: Beltone Hearing Aid Company, 1450 W. 19th Street, Chicago 8.

The Beltone Mono-Pac Hearing Aid is a three tube instrument with transmitter, amplifier and batteries in one case. A single cord connected to an air conduction receiver is attached to the case.

Physical Dimensions:

Case: 5½ by $2\frac{5}{16}$ by 1⅛ inches.

Receiver: Either 1 inch diameter or ¾ inch diameter air condition crystal (Brush).

Weight:

Case (containing batteries, transmitter and amplifier): 11¼ ounces.

Current consumption:

A battery (1½ volts), 60 milliamperes.

B battery (30 volts), 0.68 milliampere.

Current drain is independent of volume control setting.

Acoustical gain for pure tones:

	250	500	1,000	2,000	3,000	4,000	5,000	F
Maximum gain, high tone	26.5	37.0	49.0	55.0	51.0	37.5	22.0	decibels
Maximum gain, medium tone	32.0	39.5	51.5	54.0	51.0	36.5	21.0	decibels
Maximum gain, low tone	29.0	35.0	39.5	49.0	41.5	25.5	8.0	decibels

These values were obtained with the large size crystal receiver (1 inch diameter). The measurements were obtained with an artificial ear. The instrument was mounted on a body baffle. These values do not represent absolute sound pressure values but indicate the amplification efficiency of the hearing aid at the different frequency levels shown. These values are accurate to within plus or minus 3 decibels.

Physical and Mechanical Features: The entire instrument, including batteries, is contained in a single case of black plastic material, rectangular with rounded edges. The combined volume control and "off-on" switch consists of a round knob positioned in an inset at the top of the case. The case is somewhat larger and heavier than the conventional tube hearing aid transmitter and amplifier case, since it also contains the batteries. The total weight, however, is less than that of the conventional instrument which has separate cases for transmitter and batteries.

Performance: This instrument operates in an entirely satisfactory manner. There is a minimum of inherent amplifier, case and cord noise.

The Council on Physical Medicine voted to include in its list of accepted devices the Beltone Mono-Pac Vacuum Tube Hearing Aid.

—J. A. M. A., Mar. 9, 1946.

COUNCIL ON FOODS AND NUTRITION

ACCEPTED FOODS

The following additional foods have been accepted as conforming to the Rules of the Council on Foods and Nutrition of the American Medical Association for admission to Accepted Foods.

JAMES R. WILSON, M. D., *Secretary.*

PREPARATIONS USED IN THE FEEDING OF INFANTS

(See Accepted Foods, 1939, p. 156)

Beech-Nut Packing Company, Canajoharie, N. Y.

Beech-Nut Junior Raisin Rice Pudding contains milk (rawwhole), dextrose, white rice, raisins, whole eggs, farina (enriched), salt and water.

Analysis (submitted by manufacturer).—Total solids 30.08%, moisture 69.92%, ash 0.87%, fat (ether extract) 1.45%, protein (N × 6.25) 2.42%, crude fiber 0.07%, carbohydrates (other than crude fiber) 25.27%, calcium 0.063%, phosphorus 0.068%, iron total 0.41 mg. per hundred grams, iron "available" (bipyridyl method) 0.40 mg. per hundred grams, copper 0.07 mg. per hundred grams.

Calories.—124 per hundred grams, 35 per ounce.

Vitamins.—	Per Hundred Grams
Vitamin A, total	114 U. S. P. units
Thiamine	0.023 mg.
Ascorbic acid	2.02 mg.
Riboflavin	0.106 mg.
Niacin	0.80 mg.

The Gerber Products Company, Fremont, Mich.

Gerber's Chopped Carrots.

Analysis (submitted by manufacturer).—Total solids 7.3%, protein 0.6%, fat (ether extract) 0.1%, crude fiber 0.6%, carbohydrates (by difference) 4.9%, ash 1.0%, calcium 0.026%, phosphorus 0.021%, iron 0.0009%.

Calories.—6 per ounce.

Vitamins.—

Vitamin A equivalent	12,500 I. U. per hundred grams
Thiamine	0.025 mg. per hundred grams
Riboflavin	0.037 mg. per hundred grams
Ascorbic acid	2.8 mg. per hundred grams

—J. A. M. A., Mar. 9, 1946.

LIBRARY NOTES

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Only one package may be borrowed at a time, and packages are allowed to remain in the hands of the borrower for 14 days.

Package Service

Packages were mailed from the Library of the State Medical Association during April, as follows:

Providence Hospital, Waco—(1 journal); *Blood, potassium* (14 articles); *Thrombophlebitis, therapy* (11 articles); *Snake, bites* (6 articles); *Hernia, inguinal* (12 articles).

Dr. Jim Camp, Pecos—*Nasopharynx, cancer* (8 articles).

Southwestern Medical College, Dallas—(4 journals).

Dr. T. B. Reed, Mineola—*Tularemia* (13 articles).

Dr. Robert B. Wolford, Dallas—*Pneumoconiosis* (18 articles); *Dust* (14 articles).

Dr. J. D. Martin, El Paso—(5 journals).

Dr. Edgar Hutchings, Marlin—*Otomycosis* (7 articles).

Dr. Elliott Mendenhall, Dallas—*Bronchiectasis, therapy* (18 articles).

Dr. D. P. Dimmitt, Uvalde—*Paralysis, agitans* (13 articles); *Poliomyelitis, therapy* (7 articles).

Dr. J. Markewich, Houston—*Undulant Fever, therapy* (15 articles); *Blood, cholesterol* (14 articles).

Dr. F. T. McIntire, San Angelo—(6 journals).

Dr. John S. Bagwell, Dallas—*Nutrition, disorders* (11 articles); *Obesity* (26 articles).

Dr. F. B. Duncan, Amarillo—*Eyes, cancer* (10 articles).

Dr. Sidney W. Hughes, Brownwood—*Syphilis, therapy* (24 articles).

Dr. J. L. Moet, La Feria—*Fingers and Toes, dislocations* (2 articles).

Dr. B. L. Burditt, Del Rio—*Blood amylase* (5 articles).

Dr. A. Philo Howard, Houston—*Spine, intervertebral disk* (13 articles).

Dr. Holloway Bush, McKinney—*Arteriosclerosis* (7 articles); *Burns, therapy* (10 articles).

Dr. W. M. Boguskie, Hearne—(1 journal).

Capt. J. P. Gibson, Whipple, Ariz.—*Thyroid, diseases* (23 articles).

Dr. H. L. Wilder, Pampa—(4 journals).

Dr. Vernon A. Black, Wharton—(4 journals).

Dr. Ross Owens, San Antonio—*Blood, groups* (14 articles).

Dr. Wayne V. Ramsey, Abilene—(4 journals).

Dr. D. K. Robinson, Rocksprings—*Migraine* (19 articles).

Dr. S. L. Witcher, Clifton—*Anesthesia, procaine* (5 articles).

Dr. Clarence E. Gilmore, Paris—*Blood, groups* (10 articles).

Dr. A. B. Goldston, Amarillo—*Kidneys, cysts* (6 articles).

Dr. E. D. McDonald, Santa Anna—*Bursa, inflammation* (12 articles).

Dr. Thomas J. Williamson, Big Spring—*Anesthesia, pudental* (7 articles).

Dr. Bailey R. Collins, Wichita Falls—*Angina, Vincent's* (13 articles).

Dr. J. C. Terrell, Stephenville—*Colon, cancer* (26 articles).

Dr. J. P. McAnulty, San Angelo—*Thrombosis, mesenteric* (15 articles).

Dr. John D. Gleckler, Denison—*Condyloma* (8 articles).

Dr. R. H. Mitchell, Kingsville—*Coronary Vessels* (7 articles).

Dr. F. J. L. Blasingame, Wharton—*Licensure, medical* (4 articles).

Dr. Lamar C. Bevil, Beaumont—*Anesthesia, spinal* (12 articles).

Dr. J. E. Stover, Denton—*Cretinism* (12 articles).

Accessions

Philadelphia, Lea & Febiger—Soffer: Diseases of the Adrenals.

New York, Brooklyn Medical Press—The Venous Pulse and Its Graphic Recording.

Madison, The University of Wisconsin Press—Gillespie: Endotracheal Anaesthesia.

Baltimore, The Williams & Wilkins Company—Albrecht: Modern Management in Clinical Medicine.

New York, Grune & Stratton—Kalinowsky and Hoch: Shock Treatments and Other Somatic Procedures in Psychiatry.

Lawrence, Kan., University of Kansas Press—Barber: A Malariologist in Many Lands.

Springfield, Ill., Charles C. Thomas, Publisher—Macintosh and Mushin: Local Anaesthesia, Brachial Plexus; Steindler: The Traumatic Deformities and Disabilities of the Upper Extremity.

New York, D. Appleton-Century Company—Cunningham: Psychology for Nurses.

Philadelphia, W. B. Saunders Company—Mason and Zintel: Preoperative and Postoperative Treatment.

Washington, D. C., Federal Security Agency, U. S. Public Health Service—Illness and Medical Care Among 2,500,000 Persons in 83 Cities, with Special Reference to Socio-Economic Factors.

Baltimore, Collected Reprints from the Wilmer Ophthalmological Institute of the Johns Hopkins University and Hospital, Vol. VII, July 1942 to July 1945.

New York, Collected Reprints of the Grantees of The National Foundation for Infantile Paralysis, 1944, Volume V.

Summary

Reprints Received, 1,342	Local Users, 41
Journals Received, 275	Borrowers by Mail, 39
Items Consulted, 154	Packages Mailed, 51
Items Taken Out, 106	Items Mailed, 518

Total Items Consulted and Mailed, 778

MOTION PICTURE LENDING LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in color, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Lending Library, State Medical Association of Texas, 1404 West El Paso Street, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion picture films were loaned by the Motion Picture Lending Library of the State Medical Association during April:

Choose to Live (Available through the courtesy of the United States Public Health Service and the American Society for the Control of Cancer)—Fort Worth Foodhandling Class, Health Center, Fort Worth.

From Moo to You (Available through the courtesy of the Borden Company, New York)—Fort Worth Foodhandling Class, Health Center, Fort Worth.

Know for Sure (Available through the courtesy of the Texas State Board of Health)—Fort Worth Foodhandling Class, Health Center, Fort Worth.

Malaria—Falls County Medical Auxiliary, Marlin High School, Rotary Club, Falls County Medical Society, Marlin.

Roentgen Pelvimetry (Available through the courtesy of Mead Johnson & Company)—Wichita County Medical Society.

NEWS

Contributions to this department will be appreciated. News should be of general medical interest, such as public health activities, new hospitals, personal items of more than local value, etc. News for a particular number of the JOURNAL should be in the hands of the Editor not later than the fifteenth of the preceding month.

A Shortage of Hospital Beds in El Paso was made still more critical with the closing of Masonic Hospital early in April to make way for construction of a Sears-Roebuck store, informs the El Paso *Times*. No new patients were to be accepted in the seventy-two bed, thirty-year-old hospital after April 1, a loss of 16 per cent of available hospital beds in the city, Dr. Russell Holt, president of the El Paso County Medical Society, said. Southwestern General Hospital had recently made available twenty additional beds when a wing closed for two years because of the nurse shortage was re-opened. Additional beds will be added to the wing soon, Dr. R. B. Homan, president of the board of managers of the hospital, indicated, and Southwestern also plans a fourth floor addition for obstetrics, releasing thirty-five more beds for general patients. When the Masonic Hospital closed its doors, however, only 383 beds were left in local hospitals.

A Five-Hundred Bed Veterans Hospital for Dallas has been authorized, the Frisco *Journal* quotes Col. T. G. Lanuhier, deputy administrator of the Veterans Administration, as saying. To be constructed near Southwestern Medical College, the new hospital will probably cost between $4,500,000 and $5,500,000.

The Brooke Army Medical Center demonstrated the use of blood plasma in battle in the Army Day celebration at Fort Sam Houston, April 6-9, according to the San Antonio *Light*. The medical center exhibited all the equipment of a clearing company, the most forward hospital and installation on a battlefield with the exception of first aid stations, explaining the steps by which dried plasma is used, treatment for wounded and injured soldiers suffering from shock, and oxygen apparatus. The medical center, recently reorganized as a training center, is now equipped to graduate 1,031 medical trainees every four weeks. As soon as additional housing is available, an increase will be made in the number of trainees being given eight weeks of basic training at the center.

The Texas Hospital Association at its meeting in Fort Worth, March 21-23, installed Tol Terrell, Harris Memorial Methodist Hospital, Fort Worth, as president, and elected the following new officers: Russell Nye, Dallas, president-elect; J. H. Felton, Lubbock, and D. S. Riley, Big Spring, vice-presidents; Oswald Daughety, Houston, treasurer; and William Bohman, Galveston, and George Buis, Austin, trustees.

A Second Annual Crippled Children's Clinic at College Station was held May 13 under the sponsorship of the Kiwanis Club, with the coöperation of the State Health Department, Brazos-Robertson Counties Medical Society, the County Health Unit, and other civic organizations, informs the Bryan *Eagle*. Dr. G. W. N. Eggers and four colleagues from the University of Texas Medical Branch examined without charge any crippled child under 21 years of age. Those found in need of medical attention and without financial ability to secure it were offered free treatment. State Vocational Rehabilitation Department representatives were also present to confer with older children in regard to eligibility for assistance on an educational program.

A Need for Additional Hospital Beds in Austin was emphasized in a report to the Chamber of Commerce by its health committee in March, the Austin *American* states. Reasons why more beds are needed were listed as an increase in Austin's population, the danger of epidemics, and the more extensive use of hospitalization insurance. The organization will urge the city to provide all possible money for hospital expansion and all private hospitals to expand their facilities whenever and wherever possible. In a report to the health committee, Dr. Ben Primer, director of the Austin-Travis County Health Unit, outlined plans for continuous training of food handlers in proper sanitation methods, pointed to the need for more adequate tuberculosis hospitalization and a photofluorographic unit for increased tuberberculosis case-finding, the need for hospital expansion, the need for a new building for the health and welfare departments, a program for the control of diarrhea in children and the use of DDT for fly control in areas of high incidence, and health education at both professional and lay levels.

A Tuberculin Testing Program at Austin High School was begun April 1 at the request of the Raymond L. Ditmar Science Club of the high school, informs the Austin *American*. The City-County Health Unit, State Health Department, and Travis County Tuberculosis Association coöperated to make the tests possible. They were conducted by Dr. Marjorie Ferrell, pediatric consultant of the State Health Department, assisted by two public health nurses and the executive secretary of the tuberculosis association. Several hundred students took the tuberculin test following an educational program presented by the tuberculosis association. The test was explained to students and a motion picture film on the subject was shown.

A Disease Affecting Cattle Handlers in Amarillo has been under investigation recently after approximately forty persons working in the stock yards and packing houses were stricken in March. Dr. John M. Hooper, Amarillo health officer, reports that the

illness was characterized by chills, high fever, sweats, and, in some cases that were studied by roentgen rays, some evidence of pneumonitis. Two persons died, apparently of the same illness, but the outbreak seemed to be limited to the groups mentioned, with no secondary cases having been reported about a month later.

Attempts to diagnose the disease were fruitless until three blood samples out of twenty-two taken by Dr. J. V. Irons, of the State Health Department, gave positive agglutination tests for "Q" fever. Investigations were still under way late in April by the State Health Department and the U. S. Public Health Service, as there were still many epidemiologic aspects of the outbreak that had not been studied. Additional blood samples were being collected from convalescent patients in the belief that additional support might be given to the diagnosis of "Q" fever as the cause of the outbreak, Dr. Hooper said.

University of Texas.—Dr. Wesley W. Spink, professor of medicine at the University of Minnesota, recently conducted a series of conferences on streptococcal and staphylococcal infections at the University of Texas Medical Branch, Galveston.

Dr. Charles A. Doan, professor of medicine and dean of the University of Ohio School of Medicine, was in Galveston the latter part of March, at which time he gave a series of clinics and conferences at the University of Texas Medical Branch on the function of the spleen in health and disease, and on acute blood disorders. Dr. Doan inspected the Children's Hospital and Psychopathic Hospital at the University in preparation for constructing children's and psychopathic hospitals at the Ohio school, which has received a grant of $5,000,000 for that purpose.

Cecil H. Cornell, D. V. M., formerly on the staff of Texas Agricultural and Mechanical College and recently a member of the Army Sanitary Corps, has been appointed assistant professor of preventive medicine at the University of Texas School of Medicine in charge of teaching and research in sanitation.

Thirteen members of the University of Texas Medical Branch staff attended the first postwar meeting of the American Physiology Society in Atlantic City, N. J., early in March, and several of them participated in the scientific program, according to the Galveston *Tribune*. Dr. Eric Ogden, professor of physiology, reported on recent studies at the medical school concerning factors causing high blood pressure. Dr. A. N. Taylor and Dr. D. W. Cowlings, of the physiology laboratories, explained stream flow of blood in the blood vessels. Dr. George Emerson, professor of pharmacology, and Dr. Paul Ewing, associate professor of pharmacology, proposed at the meeting that a standardized method of detailed study be used for the future experimentation on "ACS," the recently publicized Russian answer to prolongation of life. ACS was also discussed by Dr. C. M. Pomerat, professor of anatomy; Dr. Thurlo Thomas, assistant professor of anatomy; and Dr. Ludwik Anigstein, associate professor of tropical medicine. Dr. D. Bailey Calvin, professor of biological chemistry, and Dr. E. J. Poth, director of the Laboratory for Experimental Surgery, reported on the maintenance of nitrogen balance by feeding amino acids. Dr. W. A. Selle, professor of physiology, discussed the action of sugars on the liver. Dr. Arild Hansen, professor of pediatrics, and Dr. Hilda Wiese, research associate in pediatrics, told of effects of fat on metabolism.

A postgraduate conference in pediatrics at the University of Texas School of Medicine, with the Maternal and Child Health Division of the Texas State Board of Health coöperating, was held April 15-20. The guest speakers included Drs. John A. Anderson, University of Utah, Salt Lake City; Ralph Bowen, Baylor University, Houston; Daniel C. Darrow, Yale University, New Haven, Conn.; J. H. Park, Jr., Baylor University, Houston; Ralph Platou, Tulane University, New Orleans, La.; George Salmon, Baylor University, Houston; and A. V. Stoesser, University of Minnesota and Minneapolis General Hospital, Minneapolis, Minn., all pediatricians, and Dr. James Watt, surgeon at the U. S. Public Health Service quarantine station at Algiers, La. Approximately thirty members of the regular University staff also participated in the program of lectures, clinics, and discussions on a variety of subjects important to the health of children. Included among these subjects were allergy, hematologic disorders, diarrhea, poliomyelitis, rheumatic fever, meningitis, herpetic infections, pneumonia, congenital syphilis, prematurity, and mediastinal emphysema.

Personals

Dr. Lorence W. Feller has been named the outstanding young man in Fredericksburg during 1945 and was presented the distinguished service award of the Fredericksburg Junior Chamber of Commerce on March 12, according to the Fredericksburg *Standard*. Dr. Feller, president of Kerr-Kendall-Gillespie-Bandera Counties Medical Society during the past year, was commended for his aggressive civic and business leadership in the city, serving through civic clubs, the Girl Scout organization, his church, and other agencies.

Dr. James H. Baxter, assistant professor of medicine at Southwestern Medical College, has been awarded the Welch Fellowship in Internal Medicine for an initial period of three years beginning July 1, the Dallas *Times-Herald* reveals. The fellowship is administered by the Medical Fellowship Board of the National Research Council and is open to a limited number of United States physicians under 40 years of age who have demonstrated unusual aptitude and promise of outstanding achievement in internal medicine, teaching, and investigation.

Dr. A. O. Scarborough, Mineral Wells, has announced his retirement from practice after many years of service in West Texas, informs the Mineral Wells *News*. Dr. Scarborough is author of several books on medicine and early day practice, based on his own experience as a pioneer physician. Dr. and Mrs. Scarborough have gone to Snyder to spend the summer.

Dr. R. L. Cherry has resigned as associate director of public health and chief of the communicable disease division in San Antonio, effective April 15, to become chief medical officer of the inter-American field party in Bolivia, under the health and sanitary division of the Office of Inter-American Affairs, states the San Antonio *Light*.

Dr. Philip Magrish, San Antonio, in March joined the city health department as a clinician and will conduct a clinic session weekly at Mexican community centers, states the San Antonio *Light*.

Dr. and Mrs. J. J. Hinchman, Albany, have left for California to live, the Albany *News* informs. Dr. Hinchman, 78 years of age, practiced medicine fifty-three years, coming to Texas from Iowa in 1926.

Marriages

Dr. Jerome Olkin Ravel and Miss Marjorie Joanne Macow, both of Austin, were married there March 23. The couple will live in Galveston, where Dr. Ravel is a resident at John Sealy Hospital.

Dr. Joe A. Walker, Huntington, married Miss Gwendolyn Rawls, Wichita Falls, on March 29. Dr. Walker is serving an internship at the Medical and Surgical Memorial Hospital in San Antonio, where the couple will reside.

Births

To *Dr. and Mrs. L. J. Taubenhaus*, Houston, a daughter, Jair Ellen, on her father's birthday, December 29, 1945.

To *Dr. and Mrs. Donald Slaughter*, Dallas, a daughter, Virginia Iline, on February 1, 1946.

To *Dr. and Mrs. Cooper M. Connor*, Fort Worth, a daughter, Judith Elaine, on February 4, 1946.

To *Dr. and Mrs. Taylor T. Pickett*, Dallas, a son, on January 30, 1946.

To *Dr. and Mrs. W. C. Levin*, Galveston, a daughter.

To *Dr. and Mrs. Harvey C. Slocum*, Galveston, a daughter, Sarah Maltby, on February 7, 1946.

SOCIETY NEWS

Bell County Society

February 6, 1946

(Reported by O. B. Gober, Secretary)

Surgical Treatment of Conditions about the Feet—Harry B. Macey, Temple.
Medical Legislation—G. V. Brindley, Councilor, Twelfth District, State Medical Association, Temple.

Bell County Medical Society met February 6 at the Kyle Hotel in Temple with twenty-seven members and eight guests present. The scientific program outlined above was presented.

A letter from Raymond Gregory, director of the out-patient clinic at the University of Texas Medical Branch, Galveston, was read. He reported that during the past fifteen months, Bell County physicians had referred thirteen patients to the diagnostic clinic of the University's School of Medicine and John Sealy Hospital.

W. R. Metzger, S. W. Shibler, Jr., V. I. Lyday, and E. R. Veirs were accepted for membership upon application.

A resolution "seeking to improve the legal recognition with regard to medicine" was adopted.

Brazoria County Society

March 28, 1946

(Reported by A. O. McCary, Secretary)

Brazoria County Medical Society met March 28 at the Community House in Angleton with the Auxiliary and a group of dentists as guests.

J. E. Clarke, Houston, Councilor of the Ninth District, was present. He reported on the recent meeting in Fort Worth of the Executive Council of the State Medical Association, at which recommendations were made that physicians sponsor some form of health protection which could be administered locally and participated in voluntarily. Dr. Clarke stressed the importance of members of the medical society writing to their Senators and Representatives regarding medical legislation before Congress. Following his talk there was a general discussion of the proposed socialization of medicine.

G. J. Hayes, Alvin, moved that the society request a sample copy of the contract offered by Group Hospital Service, for study at the next meeting. President William Greenwood, West Columbia, requested the secretary to write the State Medical Association for a list of group insurance companies acceptable in Texas.

Brown-Comanche-Mills-San Saba Counties Society

March 11, 1946

Indications of Pneumothorax—David McCullough, Kerrville.
Indications and Results of Pulmonary Reception—Robert Shaw, Dallas.
Thoracoplasty—John S. Chapman, Dallas.

Brown-Comanche-Mills-San Saba Counties Medical Society met in Hotel Brownwood on March 11. Three visiting physicians, David McCullough, Kerrville; Robert Shaw, Dallas; and John S. Chapman, Dallas, presented the program outlined above, illustrating their talks with roentgenograms.

Denton County Society

April 4, 1946

Diseases of the Heart—Alex Terrell, Dallas.

Denton County Medical Society met in the office of M. L. Hutcheson, Denton, on April 4, with President William Magness, presiding.

Alex Terrell, Dallas, spoke on diseases of the heart.

Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Society

March 28, 1946

(Reported by Edward H. Strauss, Secretary)

Socialized Medicine versus Voluntary Plans for Medical Insurance—R. B. G. Cowper, Big Spring.
The Use of Pins in Hip Fractures—J. E. Hogan, Big Spring.

Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Medical Society met March 28 at the Settles Hotel in Big Spring, with sixteen members present. The Auxiliary joined the society for a chicken dinner and an extemporaneous talk by R. B. G. Cowper, Big Spring.

After members of the auxiliary had left the society heard a talk on the use of pins in hip fractures by J. E. Hogan, Big Spring, followed by a discussion by Drs. Cowper and Thomas.

It was announced that R. B. Anderson, Fort Worth, who had been scheduled to present the program, was unable to attend because of illness. A letter from B. E. Pickett, Carrizo Springs, chairman of the Library Endowment Committee of the State Medical Association, requesting donations for a new library building, was read.

Emmett V. Headlee, Odessa, was elected to the Board of Censors to replace John H. Barganier, Odessa.

Falls County Society

April 8, 1946

(Reported by J. W. Torbett, Sr., Secretary)

Falls County Medical Society met in the Blue Room of the Falls Hotel, Marlin, on April 8 for dinner. Following the meal, a motion picture on malaria was shown under the supervision of G. H. Hampshire, program chairman.

Galveston County Society

March 8, 1946

(Reported by John McGivney, Secretary)

Treatment of Battle Casualties in a General Hospital in France—Members of Surgical Service, 127th General Hospital.
Introduction—Robert M. Moore.
Soft Tissue Wounds—Hiram P. Arnold.
Compound Fractures—William H. Ainsworth.
Abdominal and Thoracic Wounds—Harold E. Griffin.
Neurosurgical and Maxillo-Facial Wounds—John C. Kennedy.

Galveston County Medical Society met March 8 in the Laboratory Building, University of Texas Medical Branch, Galveston, for the above scientific program and a business session.

A letter from Holman Taylor, Fort Worth, Secretary of the State Medical Association, requesting appointment of a committee to survey local hospital and medical service, was read. President Francis Garbade said the committee would be appointed in the near future.

Chauncey D. Leake, vice-president and dean of the Medical Branch of the University of Texas, by letter offered the facilities of the University to the Society, including in his invitation use of the library and research facilities and attendance on scientific programs of the faculty and staff meetings of John Sealy Hospital.

The society, upon suggestion by Joseph C. Magliolo, Dickinson, decided to write the American Red Cross that no donation as a society would be made as members customarily made contributions privately. A representative of the Red Cross had written soliciting a group donation.

Upon motion by Edward Thompson, seconded by William Spiller, the society endorsed a rat eradication program along the seawall, in accordance with a written request from Lt. Stephen P. Hatchett, director of the U. S. Public Health Service Typhus Control Unit operating in Galveston.

A letter from B. E. Pickett, chairman of the Library Endowment Committee of the State Medical Association, requesting donations to the library fund, was read and referred to the committee on economics.

Henry W. Poetter was accepted for membership by transfer from the Milam County Medical Society; Werner Hoeflich, from Harris County Medical Society.

Harris County Society

March 20, 1946

Recent Advances in Female Sex Hormones—Willard M. Allen, St. Louis, Mo.

Harris County Medical Society met March 20 in Houston to hear Willard M. Allen, chairman of the Department of Obstetrics and Gynecology of Washington University in St. Louis, speak on female sex hormones. Dr. Allen, author of more than sixty papers dealing with the subject, also addressed the Houston Society of Obstetricians and Gynecologists.

Hunt-Rockwall-Rains Counties Society

March 12, 1946

(Reported by Harriet Rogers, Secretary)

Regional Ileitis in a Female 29 Years of Age (Case Report)—Lowell H. Leberman, Commerce.
Cesarean Section—Joe Becton, Greenville.
Acute Pancreatitis—Leslie Bush, Greenville.

Hunt-Rockwall-Rains Counties Medical Society met in Greenville March 12 with seven members and two visitors present. The above scientific program was presented.

Joe Becton reported the indications for cesarean section as bony deformities, twins, eclampsia, placenta previa, premature separation, and heart complications. He discussed classical and low cervical types of cesarean section.

Leslie Bush discussed acute pancreatitis, reporting 4 cases with the symptoms of nausea, vomiting, acute abdominal pain, and shock. He presented the differential diagnosis of peptic ulcer, coronary thrombosis, cholecystitis, and appendicitis, and discussed other phases of the problem.

Drs. Leberman, Becton, and Harry M. Bradford participated in discussion of the papers.

Jefferson County Society

April 8, 1946

(Reported by L. R. Byrd, Jr., Secretary)

Clinical-Pathological Conference—John A. Hart, Beaumont.
The Control of Venereal Disease—T. A. Fears, Beaumont.

Jefferson County Medical Society met April 8 at Hotel Dieu, Beaumont, with L. R. Byrd, Jr., secretary, presiding in the absence of the president and the vice-president.

John A. Hart, Beaumont, conducted a clinical-pathological conference. He presented a case, which was discussed by L. T. Pruit, D. A. Mann, Norman Duren, J. J. Fertitta, S. T. Wier, and J. N. Gardner, of Beaumont, and B. B. Elster, of Port Arthur. S. J. Lewis, Beaumont, gave the summation and pathological picture.

T. A. Fears, Beaumont, discussed venereal disease, dealing with control measures, prevention, diagnosis, and treatment. He then presented an outline of the venereal disease education program for Jefferson County as proposed by him at the last meeting. W. A. Smith, H. B. Williford, Lamar Bevil, and E. H. Lindsey, all of Beaumont, discussed the presentation. L. C. Powell, Beaumont, moved endorsement of the venereal disease program. The motion was seconded by Dr. Bevil, and carried.

Dr. Fears read a letter from the Veterans Administration with reference to handling and care of veterans with service connected disability.

C. H. Todd, Jr., Beaumont, reported that the Municipal Dispensary planned to ask G. W. N. Eggers and his associates in Galveston to hold a crippled children's clinic and had requested approval of the society for such a plan. Upon motion by E. D. Mills, Beaumont, seconded by J. A. Bybee, Beaumont, approval was voted.

L. C. Heare, Port Arthur, and L. C. Powell, Beaumont, gave an account of the recent public relations conference held in Fort Worth in connection with the Wagner-Murray-Dingell bill, now pending in Congress. They pointed out the urgency of action aimed to defeat the measure, and upon motion by W. D. Brown, Beaumont, seconded by Dr. Gardner, the society adopted a resoloution introduced by Dr. Heare. This resolution placed the Jefferson County Medical Society on record as strongly opposed to passage of the Wagner-Murray-Dingell bill and requested the support of each of the Congressional members from the district in defeating the bill.

The society decided to follow the precedent set prior to 1942, when the dues of the secretary had been paid by the society, and agreed to refund to Secretary Byrd his expenditure for dues since 1944 and to pay his dues for 1946.

A letter of resignation from the society by S. Ross Jones, Port Arthur, was read. Dr. Jones indicated that he was retiring from medical practice because of ill health. Dr. Powell moved that the resignation not be accepted and that Dr. Jones be proposed for honorary membership in the State Medical Association. The motion was seconded by Dr. Heare, and carried.

Dr. Byrd reintroduced the problem of the failure of active members to pay the assessment voted by the society, contrary to the by-laws of the organization. After general discussion, the matter was referred to the society's attorney, J. B. Morris.

C. M. White, chairman; W. D. Brown, and D. A. Mann, all of Beaumont, were appointed to write resolutions on the recent death of Dr. Talbot A. Tumbleson, Beaumont.

Kerr-Kendall-Gillespie-Bandera Counties Society

March 8, 1946

Kerr-Kendall-Gillespie-Bandera Counties Medical Society officers met March 8 in Kerrville for a conference concerning public health legislation. R. B. Anderson, Fort Worth, chairman of the Committee on Public Relations of the State Medical Association; John H. Burleson, San Antonio, chairman of the Legislative Committee; Mr. Jeff L. Reese, Fort Worth, director of public relations; and C. E. Scull, councilor of the Fifth District, were visitors for the conference.

After the meeting, the Woman's Auxiliary was host for a buffet supper at the home of Dr. and Mrs. S. E. Thompson. Mrs. W. E. Gregg, retiring president, and Mrs. L. L. Keyser, incoming president, served at the table. Decorations included peach blossoms, bridal wreath, and hyacinths.

Lubbock-Crosby Counties Society

March 5, 1946

(Reported by Martin H. Benson, Secretary)

Diverticula of the Duodenum—A. G. Barsh, Lubbock.

Lubbock-Crosby Counties Medical Society met March 5 at the Hotel Lubbock with twenty-one members and one guest present. President A. G. Barsh presided.

It was decided upon motion by James E. Loveless, Slaton, and seconded by Robert H. McCarty, Lubbock, that physicians who had been military members of the society would be notified that they cannot be carried as members if they have severed their connection with military forces, unless they pay their dues.

The committee on x-ray investigation reported on the cost of an x-ray unit and the inability of the local hospitals to carry the required load. It was suggested that the city buy its own photofluoroscopic unit and hire a full time technician. No disposition of the problem was made.

Denzil D. Cross, Lubbock, president of the Panhandle District Medical Society, announced the spring

meeting of that organization in Amarillo on April 9-10.

A letter regarding the establishment of a medical laboratory in Lubbock was read, but no action was taken. Another letter from the Central Office of the State Medical Association regarding the need for doctors and hospitals in the locality was read and referred to the legislative and public relations committee.

Dr. Barsh discussed the history, incidence, relation to old age and sex, and pathogenesis of diverticula of the duodenum. He said that diagnosis is simple but can be accomplished only by roentgen examination. He mentioned the various symptoms and treatment, both medical and surgical. General discussion followed the presentation.

Nueces County Society

Nueces County Medical Society in coöperation with Memorial Hospital, Corpus Christi, is establishing a Nueces County Medical Library at the hospital. A trained medical librarian has already been employed full time.

C. D. Stewart, chairman; L. M. Garrett, C. L. Concklin, and Mr. Ross O. Urban, administrator of Memorial Hospital, are serving as a planning committee for the library. Some books have already been donated by local doctors, and funds to purchase additional books will be furnished by the sponsors. The library will be for the use only of members of the Nueces County Medical Society.

Smith County Medical Society

March 28, 1946

Smith County Medical Society was entertained March 28 by Dr. and Mrs. E. H. Vaughn, Tyler, at a buffet supper in the Blackstone Hotel Rose Room in Tyler, at which twenty-three physicians and dentists who were war veterans were the honor guests. Several brief talks on various phases of medicine and dentistry, particularly their advance during the war years, were given.

Physicians who served in the armed forces and attended the supper included E. N. Adams, Porter Bailes, Melvin R. Wilcox, Joe Golenternek, Dan Golenternek, Elbert H. Caldwell, Edwin G. Faber, Jesse Goldfeder, Masters H. Moore, Lex T. Neill, Leland R. Rhine, Herman C. Sehested, Jim Miller Vaughn, and W. O. Brown, the latter of Houston.

Tarrant County Society

April 2, 1946

(Reported by W. P. Higgins, Jr., Secretary)

The Management of Uretero-Pelvic Juncture Obstruction; Translumbar Arteriography As an Adjunct—A. K. Doss.

Tarrant County Medical Society met with thirty-one members and two visitors present in the Medical Arts Auditorium, Fort Worth, on April 2. The above scientific presentation was carried out, discussion being participated in by R. S. Mallard, Harold J. Shelley, and Hub E. Isaacks.

John J. Andujar introduced a motion which was seconded section by section and voted upon section by section. The motion, which was unanimously adopted in its entirety, proposed that the society go on record as strongly endorsing the principle of basic science legislation; favoring "complete legal, professional, and political separation from all cultists"; favoring "the principle of nonprofit, prepaid medical care for low income groups under the auspices or direct management of the State Medical Association"; and unalterably opposing socialized medicine "whether couched under the disguise of compulsory national health insurance or any other term."

In the absence of members of the by-laws committee, the secretary read and called for discussion on proposed changes in the by-laws of the society. He said that copies of the proposed changes would be mailed to members ten days in advance of the next meeting, at which time final action would be taken.

A letter from the Library Endowment Committee of the State Medical Association requesting donations was read.

Tribute was paid Mrs. H. W. Harper, mother of H. W. Harper, Jr., who died April 1.

Carl M. Austin was elected to membership upon application and Kenneth B. Walborn was accepted for membership by transfer from Dallas County.

Third (Panhandle) District Society

April 9-10, 1946

(Reported by George L. Powers, Secretary)

Third (Panhandle) District Medical Society met in Amarillo with headquarters at the Herring Hotel, April 9-10, with eighty-nine physicians registered. Nine supply houses and drug companies had exhibits.

In a business session W. A. Carroll, Claude, assumed the presidency; George L. Powers, Amarillo, was reelected secretary; and A. E. Winsett, Amarillo, was chosen president-elect. It was decided to hold the next meeting in Lubbock, October 8-9.

A luncheon and round-table discussion was held each noon of the meeting, and a banquet and dance was held the evening of the first day. The following scientific program was carried out:

TUESDAY, APRIL 9

President's Address—D. D. Cross, Lubbock.

Eye, Ear, Nose, and Throat Section

(R. A. Duncan, Amarillo, chairman; Fred J. Crumley, Amarillo, secretary)

Symposium on Headache:
Headache from the Standpoint of the Otolaryngologist and Ophthalmologist—A. J. Streit, Amarillo.
Headache from the Standpoint of the Internist—Harvey H. Latson, Amarillo.
Discussion—F. B. Malone, Lubbock, and Evelyn G. Powers, Amarillo.

Section on Medicine

(Richard Keys, Amarillo, chairman; George M. Waddill, Amarillo, secretary)

The Decompensating Gastro-Intestinal Tract—Milford O. Rouse, Dallas.
Discussion—Kenneth R. Flamm, Amarillo.
Rheumatic Fever—Wallace Sako, Galveston.
Discussion—George M. Cultra, Amarillo.
Superficial Fungus and Certain Bacterial Infections of the Skin—J. G. Brau, Dallas.
Discussion—Christopher C. Mansell, Lubbock.
Public Relations—E. A. Rowley, Amarillo.

WEDNESDAY, APRIL 10

Obstetrics and Gynecology Section

(Jason Robberson, Amarillo, chairman; D. S. Marsalis, Amarillo, secretary)

Benign Cervical Lesions—William F. Guerriero, Dallas.
Discussion—O. W. English, Lubbock.
Frigidity—Sam Dunn, Lubbock.
Discussion—Allen T. Stewart, Lubbock.
Technique of Thyroidectomy—Guy Owens, Amarillo.
Discussion—Julius T. Krueger, Lubbock.

Surgery Section

(A. E. Winsett, Amarillo, chairman; R. R. Swindell, Amarillo, secretary)

Uses and Abuses of Colostomy—George R. Enloe, Fort Worth.
Discussion—R. D. Gist, Amarillo.
Uses of Sulfasuxidine in Colon Surgery—Edward Crump, Wichita Falls.
Discussion—W. R. Klingensmith, Amarillo.
Management of Uretero-Pelvic Juncture Obstruction; Translumbar Arteriography—A. Keller Doss, Fort Worth.
Discussion—Sam K. Broyles, Amarillo.
Treatment of Fractures by Fixation—G. W. N. Eggers, Galveston.
Discussion—D. S. Marsalis, Amarillo.

Eleventh District Society

March 29, 1946

(Reported by J. M. Travis, Secretary)

The Eleventh District Medical Society met in the Liberty Hotel, Jacksonville, on March 29. The society and the Woman's Auxiliary met jointly for dinner in the dining room of the hotel, during which time the Auxiliary furnished a program, consisting of a reading by Mrs. Arch Pearson, Jacksonville, and a piano solo by a student of Lon Morris College. Mrs. L. B. Windham, Tyler, responded to a welcome by Marvin Lamb, Jacksonville. The auxiliary then went to the home of Mrs. R. T. Travis.

The society in business session unanimously passed

a resolution introduced by J. M. Travis, Jacksonville, having to do with duties of the society officers. Another resolution, introduced by Dr. Travis and seconded by C. C. McDonald, Tyler, favoring maintenance of the hospital at Camp Fannin, was also unanimously adopted.

Leroy Trice, Palestine, called the attention of the society to the fact that A. L. Hathcock, councilor of the Eleventh District, was retiring from active practice and would not be a candidate for reelection. The society unanimously directed the Secretary to write a letter of appreciation to Dr. Hathcock for his past services.

L. L. Travis, Jacksonville, was elected president and Dr. Trice was elected vice-president, each to serve one year. C. B. Young, Tyler, was elected secretary-treasurer for four years. A Board of Directors will be appointed by the incoming president. Palestine was selected for the next meeting of the society in October.

John T. Moore, Houston, was invited to address the group, and the following scientific program was carried out:

Typhus Fever—George M. Hilliard, Jacksonville.
Discussion—E. G. Faber, Tyler.
The Treatment of Simple and Complicated Urinary Tract Infections—Hugh Rives, Houston.
Discussion—T. M. Jarmon, Tyler.
Recent Advances in Thoracic Surgery—Robert R. Shaw, Dallas.
Discussion—C. B. Young, Tyler.
Group Insurance for Medical and Surgical Service—C. C. Cody, Houston, President-Elect, State Medical Association.

Thirteenth District Society

March 28, 1946

(Reported by Joe R. Wise, Secretary)

Thirteenth District Medical Society had fifty-six registered for an all-day meeting in Eastland, March 28. The following program was given:

Welcome Address—A. W. Brazda, Ranger, President, Eastland-Callahan Medical Society.
The Diagnosis and Treatment of Urinary Frequency in the Female—James P. Bridges, Abilene.
Surgical Intervention in Cholecystic Disease—W. Burgess Sealy, Fort Worth.
Nephrosis—V. J. Donnelly, Bowie.
Diaphragmatic Hernia, Traumatic Origin, with Case Report—W. Harry Ledbetter, Wichita Falls.
Restoration of the Hand—J. R. Cochran, Fort Worth.
A General Consideration of the More Common Ano-Rectal Diseases—T. Wade Hedrick, Abilene.
Injuries of the Intestines—J. W. Tottenham, Jr., Fort Worth.

The membership agreed that programs should continue to be made up from papers presented by members of the society rather than by guests. Plans were made for a meeting in the fall, the date and place to be set later.

The society joined the Woman's Auxiliary for luncheon at the Connellee Hotel.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. C. B. Alexander, San Antonio; President-Elect, Mrs. George Turner, El Paso; First Vice-President, Mrs. S. M. Hill, Dallas; Second Vice-President, Mrs. L. W. O. Janssen, Corpus Christi; Third Vice-President, Mrs. Troy A. Shafer, Harlingen; Fourth Vice-President, Mrs. Mark H. Latimer, Houston; Treasurer, Mrs. F. R. Rugeley, Wharton; Recording Secretary, Mrs. Paul H. Power, Waco; Corresponding Secretary, Mrs. Wilbur Robertson, San Antonio; Publicity Secretary, Mrs. E. L. Howard, Fort Worth; Parliamentarian, Mrs. W. R. Klingensmith, Amarillo.

AUXILIARY NEWS

Bowie-Miller Counties Auxiliary met March 22 at the home of Mrs. Joe Tyson in Texarkana, with Mrs. J. T. Robison as cohostess. Mrs. William Hibbitts, president, presided.

Mrs. Roy Baskett reported on *Hygeia* subscriptions which the auxiliary had given to Texarkana schools and to the public library. Mrs. Robison reported on contacts made which might be helpful in defeating the Wagner-Murray-Dingell bill.

Mrs. Luline Fortune Willis was guest speaker, using as her subject "American Folk Music." Mrs. Willis traced the history of folks songs in America from the period of the puritans to the present time, singing several early folk songs, which she collects and studies as a hobby.

Guests were invited to the dining room for coffee, poured by Mrs. Hibbitts, and a dessert course served by Mrs. Robison and Mrs. Joe E. Tyson. Gladioli and candles decorated the table, and iris and other spring flowers were used throughout the rooms.

Bowie-Miller Counties Auxiliary is represented on the board of directors of the Texarkana chapter of the American Cancer Society, organized in April. Mrs. Ralph Cross and Mrs. H. E. Murry were named to the sixteen member board. Mrs. William Hibbitts was also present at the organizational meeting. The local chapter was organized to help control cancer through educational programs, cancer clinics, and other effective methods.

Brazoria County Auxiliary attended a dinner party with the medical Society, March 28, at the Civic Hall in Angleton. Following the dinner the auxiliary members assembled for their regular meeting .

The following officers were elected for the coming year: Mrs. William Greenwood, West Columbia, president; Mrs. G. J. Hayes, Alvin, vice-president, and reporter; and Mrs. William Holt, Angleton, secretary-treasurer.

Following the business meeting there was an open discussion on socialized medicine and the rapid penicillin treatment of syphilis.—Mrs. G. J. Hayes, Reporter.

Brazos-Robertson Counties Auxiliary met for dinner at the home of Dr. and Mrs. James Sidney Perry in Bryan on March 26. The Medical Society joined the auxiliary for dinner and held a separate business session afterward.

The auxiliary elected the following officers: Mesdames L. O. Wilkerson, Bryan, president; T. A. Searcy, Hearne, vice-president; W. M. Boguski, Hearne, treasurer; D. W. Andres, College Station, secretary; R. M. Searcy, Bryan, corresponding secretary; A. G. McGill, Jr., Bryan, reporter.

About thirty were present for dinner, which was served buffet style from a table centered with a spring flower arrangement flanked by burning white tapers in silver candelabra. Guests dined at small tables.

Dallas County Auxiliary honored new members January 2 at noon at the Dallas Country Club, with Mrs. Joseph H. McCracken, Jr., president, presiding. Mrs. Floyd S. Franklin, program chairman, presented Mrs. W. C. Edwards, Jr., of the staff of the Dallas Museum of Fine Arts, in a talk on children's art.

A doctors' day dinner was held in February at the Dallas Country Club. Following a duo piano concert of semi-popular numbers by Jeanne and Edward Deis, Miss Lois Sager, war correspondent of the Dallas *News*, told of medical conditions in Europe. Mrs. McCracken gave a summary of the auxiliary's social, philanthropic, educational, and legislative activities, including a report of a contribution of $250 to Southwestern Medical Foundation. Program cochairmen were Mesdames Dayton G. McBride and Cecil O. Patterson. Hostesses were the executive board, including Mrs. McCracken, president; Mrs. J. Forest Buchanan, president-elect; Mrs. McBride, first vice-president; Mrs. Sidney S. Baird, second vice-president; Mrs. J. Dennis O'Brien, third vice-president; Mrs. Guy A. Tittle, recording secretary; Mrs. T. W. Bywaters, corresponding secretary; Mrs. Harry B. Sowers, treasurer; Mrs. Hall Shannon, parliamentarian; Mrs. J. R. Maxfield, Jr., publicity; and Mrs. U. P. Hackney, historian.

The program for the March 6 meeting at the Dallas Country Club was presented by Mrs. John V.

Goode, who introduced an astrologist in a talk entitled "Madam Caesall Looks at the Stars." New officers were elected, to be installed in May. They include Mesdames J. Forest Buchanan, president; John M. Pace, president-elect; Ridings Lee, first vice-president; W. E. Carswell, second vice-president; Carl Carter, third vice-president; John Bourland, recording secretary; Lewis C. Sams, corresponding secretary; Alvin Baldwin, treasurer; Charles Martin, parliamentarian; Ben Harrison, publicity; and U. P. Hackney, historian.

Guest day was observed April 3, at which time Mrs. Roscoe Bates reviewed a book entitled "Ancestor's Brocade," a biography of Emily Dickinson. Mrs. McCracken introduced a group of doctors' wives from Fort Worth. Mrs. McCracken and Mrs. Buchanan were elected as delegates to the State Auxiliary meeting in Galveston in May, with Mrs. Guy Jones and Mrs. John Pace as alternates.

Dr. Frank Selecman, member of the Public Relations Committee of the State Medical Association, spoke on medical legislation at the May 1 meeting, with Mrs. S. F. Harrington as program chairman. Officers elected in March were installed. Past presidents of the auxiliary were hostesses.—Mrs. J. R. Maxfield, Jr., Publicity Chairman.

El Paso County Auxiliary heard Dr. I. M. Epstein at a buffet luncheon in the Hilton Hotel in March. His subject was "Recent Developments in Medical Science." Yellow jonquils and pink sweet peas in a blue epergne decorated the buffet table, and floating pansies centered the small tables.

Falls County Auxiliary met in March with Mrs. J. D. Collier. The auxiliary is sponsoring a health project in the public schools of Marlin, by which funds donated by the auxiliary are used so that children suspected of having tuberculosis may be given skin tests and, if the tests are positive, receive treatment.

Falls County Auxiliary on April 11 sponsored the showing of a motion picture on malaria at the high school gymnasium, which the public was invited to attend without charge.

Galveston County Auxiliary was entertained at a tea given by Mrs. Charles T. Stone in her home on March 15. During the business meeting the following new officers were elected: Mesdames John Otto, Galveston, president; T. M. Frank, Texas City, vice-president; John Thiel, Galveston, secretary (re-elected); Hamilton Ford, Galveston, corresponding secretary; and Hughes Gilliam, Galveston, treasurer.

"The Surgeon in the Romantic Story of Texas" was the subject of an illustrated lecture given by Dr. A. O. Singleton, professor of surgery at the University of Texas School of Medicine. He briefly traced the history of the surgeon in Texas from Cabeza de Vaca in 1528, through the days of Ashbel Smith and Anson Jones, down to the time of Drs. James E. Thompson, Edward Randall, and Seth Morris, the only living member of the original faculty of the University of Texas School of Medicine.

Mrs. J. L. Jinkins, chairman of the game-day party held February 15, reported that $571.17 was given to the loan fund for medical students. Local committee chairmen were announced and plans were made for the State Auxiliary meeting to be held in Galveston May 6-9.

The tea table was centered with an arrangement of daffodils and blue iris, flanked by yellow tapers. Presiding at the tea and coffee services were Mrs. W. S. Carter, Greenwich, Conn., wife of the late Dr. Carter, who was twice dean of the University of Texas School of Medicine; Mrs. M. L. Graves, Houston; Mrs. Edward Randall, Sr., and Mrs. A. O. Singleton. Assisting Mrs. Stone as hostesses were Mesdames C. M. Nave, Meyer Bodansky, Chauncey D. Leake, H. Reid Robinson, and Willard R. Cooke.

Grayson County Auxiliary elected officers at its meeting in March at Hotel Denison, in Denison. Mrs. Arthur Gleckler, Sherman, was elected president; Mrs. Doak Blassingame, Denison, vice-president; Mrs. Frank Sporer, Van Alstyne, second vice-president; and Mrs. C. D. Strother, Sherman, secretary-treasurer. In the absence of Mrs. W. A. Lee, Mrs. J. E. Meador presided over the session, at which twenty-two members were present.

Dr. A. L. Ridings, Sherman, spoke on "Progress of Scientific Medicine." Four new members, Mesdames Charles Truett, James E. McFarling, M. Cohen, all of Denison, and John Hardy, Sherman, were introduced.

Preceding the business session and program, luncheon was served. The table was centered with a crystal bowl containing mixed yellow spring flowers, and shamrocks were used as plate favors.

Harris County Auxiliary sponsored a health institute at the Sears Roebuck Auditorium, Houston, on Friday morning, April 5, to which the public was invited.

Speakers included the following members of the Baylor University College of Medicine faculty; Drs. Don Chapman, department of internal medicine, who spoke on heart disease; W. M. Fisher, department of public health and preventive medicine, "Domestic Help as Disease Carriers"; George Salmon, department of pediatrics, "Congenital Anomalies"; Harbert Davenport, department of pathology, "A Pathologist Looks at Cancer."—Mrs. Granville Q. Adams, Press Secretary.

Kerr-Kendall-Gillespie-Bandera Counties Auxiliary met April 5 at the home of Mrs. L. L. Keyser at Fredericksburg, with Mrs. L. A. Feller and Mrs. H. G. Pfeiffer as cohostesses.

Officers for the coming year were elected unanimously from the recommendations presented by the nominating committee. They include president, Mrs. L. L. Keyser, Fredericksburg; first vice-presidents, Mrs. D. R. Knapp, Kerrville, and Mrs. C. C. Jones, Comfort; second vice-presidents, Mrs. C. F. Culver, Kerrville, and Mrs. L. A. Feller, Fredericksburg; third vice-president, Mrs. Duane Packard, Kerrville; recording secretary, Mrs. David McCullough, Kerrville; treasurer, Mrs. A. P. Allison, Kerrville; parliamentarian, Mrs. C. C. Jones, Comfort; and historian, Mrs. C. B. Matthews, Kerrville.

The final reports on the annual Tuberculosis Christmas Seal sale which the auxiliary sponsors were given. Since the auxiliary started sponsoring this project, there has been a yearly increase in the amount collected. Total sales for this year amounted to $1,515.19 as compared with $1,504 in 1944 and $1,409 in 1943. The cash balance in the fund is now $2,143.81. In addition, bonds having an actual value of $1,572.50 and maturity value of $2,125 are in the fund. The auxiliary took in $54.30 at booths and receipts from bangle sales amounted to $82.87 this year.

Under the administration of the County Tuberculosis Society, the auxiliary has also helped in giving patch tests to school children. Including the patch tests which were given last year to school children in Kerr County, a total of 670 children have been tested and examined. Patch tests will be given at the elementary schools in Kerrville during April, completing this year's work.

Mrs. H. H. Gallatin was appointed alternate for Mrs. W. E. Gregg, president, to represent the auxiliary at the meeting of the State Auxiliary in Galveston in May, and Mrs. Sam Thompson was appointed official delegate.

Mrs. Gallatin told many interesting things about the organization of the Four-Counties Woman's Auxiliary on July 1, 1931. Mrs. Gallatin was the first president of the auxiliary, and many of the other charter members were present at the meeting. The information she gave is to be included in an article being written by Mrs. L. A. Feller for the centennial edition of a Fredericksburg newspaper.

After the meeting was adjourned, Mrs. Gregg presided at the tea table. She was assisted in serving by Mrs. Gallatin.—Mrs. David McCullough, Recording Secretary.

Eleventh District Auxiliary met March 29 in Jacksonville, first joining the Medical Society for dinner at the Liberty Hotel and then adjourning to the home of Mrs. R. T. Travis for a business session, at which twenty-two were present.

Mrs. L. B. Windham, Tyler, president of the auxiliary, conducted an election in which Mrs. G. M. Hilliard, Jacksonville, was named president. Other officers elected include Mesdames J. L. Dean, Crockett, first vice-president; C. B. Young, Tyler, second vice-president; A. L. Kuykendall, Rusk, third vice-president; R. H. Hodge, Athens, recording secretary; J. M. Travis, Jacksonville, corresponding secretary and treasurer; T. M. Jarmon, Tyler, parliamentarian; and T. A. Stevens, Jacksonville, reporter.

Thirteenth District Auxiliary met in Eastland on March 28. Mrs. A. W. Brazda, Ranger, president, welcomed the members. Following a luncheon at the Connellee Hotel with the Medical Society, the auxiliary heard Mrs. John Thurman review a book.

BOOK NOTES

[1]**Pediatric X-Ray Diagnosis.** A Textbook for Students and Practitioners of Pediatrics, Surgery and Radiology. By John Caffey, A. B., M. D. Associate Professor of Pediatrics, College of Physicians and Surgeons, Columbia University; Associate Pediatrician and Roentgenologist, Babies Hospital and Vanderbilt Clinic, New York City. Cloth, 818 pages. Price, $12.50. Chicago, Year Book Publishers, Inc., 1945.

The publishers are to be commended for adding to their growing list of excellent monographs this timely and thoroughly useful book, said by the author to have stemmed from semimonthly roentgen conferences at the Babies Hospital in New York over the last twenty years.

As the title indicates, discussion is limited to diagnosis and interpretation of x-ray studies in infants and children. The 818 pages are divided into sections which deal exhaustively with the various anatomical divisions of the body. An excellent feature is the inclusion at the beginning of each section of an illustrated description of the pertinent regional anatomy. Throughout the book, roentgen interpretation is closely related to anatomical considerations, and the normal variations are emphasized.

Perhaps the best of the several appealing characteristics is the striking excellence with which the many roentgenograms and drawings are chosen and reproduced. The reviewer found not a single figure which failed to illustrate well the intended features. As an x-ray atlas alone the book would have much value.

Little adverse criticism can be offered. Peptic ulcer, although uncommon in infants and children, would seem to warrant more attention than a single paragraph without illustration. Quite brief consideration is given also to steatorrhea, celiac disease, and related conditions.

The printing and format are a pleasing improvement over many wartime publications.

VENEREAL DISEASE ABSTRACTS*

Preliminary Report Evaluating the Worth of Obtaining Names of Suspected Contacts During a Regular Contact Interview. W. D. Hazelhurst, C. P. Stevick, and Harold A. Kahn. Journal of Venereal Disease Information, Washington, 27:65-68 (March) 1946.

In a preliminary tabulation of 599 persons reported by infected patients, not as direct contacts, but as "suspected contacts," the authors found that the percentage of these suspected contacts brought to treatment was 9.0 in comparison to 9.9 direct contacts named. In an addendum, the authors emphasize that future experience with this casefinding method has proven less useful than was indicated by earlier practice. The addendum states that the method was largely discontinued, and that it is not recommended for general use in health departments and rapid treatment centers.

Summarizing the study, the authors state that a tabulation was made showing the results of investigation of 599 suspected contacts reported during March-June, 1945, by clinic patients as: (a) promiscuous, although the patient denied any sexual exposure to the person named; (b) exposed to a direct contact already named by the patient, but not directly exposed to the informant himself; (c) participants in hotel parties, brothel escapades, and so forth, of which the patient was a member, although direct exposure is denied.

A large proportion of the new infections discovered by this means of interviewing were early cases. Of 24 such syphilis cases brought to treatment, 11 were primary or secondary, 7 were latent, and 6 were not specified.

There appears to be a strong relationship between the disease of the informant and the disease of the suspected contact named. Of 62 suspected contacts found infected, only 9 were infected with a disease not diagnosed in the informant.

Further careful studies of this method are suggested so that its efficiency and value as a casefinding instrument can be accurately determined.

Oral and Parenteral Use of Aluminum Penicillin Mixtures in the Treatment of Gonorrhea. S. W. Bohls, E. B. M. Cook, and R. T. Potter. Journal of Venereal Disease Information, Washington, 27:69-74, (March) 1946.

The authors found that a total dose of 400,000 units of penicillin in an oral tablet containing aluminum potassium sulfate and sodium benzoate resulted in a "cure rate" of 97.2 per cent in a series of 36 female gonorrhea patients.

A total of 74 patients with gonorrhea were treated by the oral penicillin tablets (each tablet containing 25,000 units of penicillin) in four different schemes.

In the first scheme of treatment, 10 patients with culturally positive gonorrhea were treated with a single oral dose of 100,000 units of aluminum penicillin with sodium benzoate. Cultures were made 48 hours later, and 4 were found to be positive and 6 negative. The penicillin blood level of this group at 24 hours averaged 0.023 units per milliliter of blood serum.

In a group of 15 patients, a dose of 200,000 units maintained a penicillin blood level of an average of 0.078 units per milliliter of blood serum for over 24 hours. Cultures made from these patients 48 hours after the medication was given showed that only 1 was positive for gonorrhea.

In another series of 49 patients, 13 patients were given 100,000 units of penicillin in this tablet form at 7 to 8 a. m. and at 3 to 4 p. m. on two successive days. Follow-up cultures as tests of cure were taken at 48, 72, 96, and 120 hours. There were 3 failures among this group giving a failure rate of 23.1 per cent. Penicillin blood levels were not obtained on any of these 49 patients.

[1]Reviewed by John S. Bagwell, M. D., Dallas, Texas.

*Abstracts of articles appearing in *The Journal of Venereal Disease Information* (formerly *Venereal Disease Information*) prepared by the Venereal Disease Division, U. S. Public Health Service.

The remaining 36 patients of this series were given a total dosage of 400,000 units, with 200,000 units being given at approximately 7 to 8 a. m., followed by an additional 200,000 units 7 to 8 hours later. Each of the 36 patients had cultures taken as tests of cure at 48, 72, 96, and 120 hours. There was only 1 failure among the 36, giving a failure rate of only 2.8 per cent.

No untoward signs of symptoms were experienced with this type of penicillin therapy. The authors point out that since this is a preliminary report, the optimum time-dosage schedule of this type of oral penicillin therapy in the treatment of gonorrhea has not yet been ascertained.

A review of penicillin therapy for gonorrhea is given; the use of aluminum penicillin preparations by injection with and without the addition of oral benzoic acid in the treatment of gonorrhea is discussed. The aluminum causes relayed absorption and the benzoic acid inhibits renal excretion of the penicillin.

DEATHS*

Dr. Joseph Reuss Frobese, Austin, Texas, died in a hospital there of carcinoma of the liver on February 8, 1946.

Born in Cuero, July 13, 1884, Dr. Frobese was the son of William and Alfreda (Reuss) Frobese. His father was president of H. Runge and Company at Cuero, the oldest private banking firm in Texas. Dr. Frobese attended the Cuero public schools and received a bachelor of science degree from the University of Texas. He then was graduated in medicine from the University of Texas School of Medicine Galveston, in 1910, remaining in Galveston to serve an internship at John Sealy Hospital. He began practice in Cuero, where he was health officer of DeWitt County, but moved to San Antonio in 1925, and to Austin in 1931, practicing in the latter city until shortly before his death. He specialized in urology and proctology, and was urological consultant for the International and Great Northern Railway. He was an active member of the staffs of Brackenridge and Seton Hospitals in Austin.

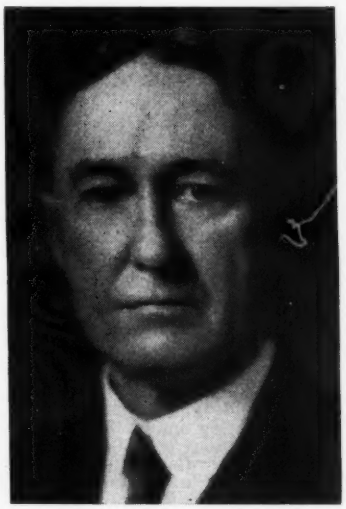
DR. JOSEPH R. FROBESE

Throughout his professional life Dr. Frobese was a member of the State Medical Association and American Medical Association, first through the DeWitt County Medical Society, then through Bexar County Medical Society, and more recently through Travis County Medical Society. He was also a member of the Southern Medical Association and of the American Urological Association. He was a member of Delta Tau Delta fraternity at the University of Texas in Austin and of Alpha Kappa Kappa fraternity at the School of Medicine in Galveston. He was a member of the Blue Lodge and Royal Arch Masons at Cuero, the Commandery at Yoakum, the Consistory and Shrine at San Antonio, the Austin Ben Hur Temple, Austin Chamber of Commerce, and the Baptist Church.

In 1912 Dr. Frobese married Miss Pearl Cade, of San Antonio, who died in 1913. In 1917 in Hallettsville he married Miss Mary Valerie Mair, of Houston, who survives. He is also survived by two sons, Joseph Cade Frobese, Brenham, and Dr. Alfred Searcy Frobese, Austin; one daughter, Miss Mary Valerie Frobese, Austin; three sisters, Mrs. H. E. Leonardt, Miss Alma Frobese, and Miss Anne Frobese, Cuero; and two brothers, Alfred Frobese, Yoakum, and Charles Frobese, Westoff.

Dr. William Cook Lackey, Fort Worth, Texas, died of heart disease in a local hospital April 5, 1946.

The son of Charles and Mary Elizabeth Lackey, Dr. Lackey was born December 8, 1875, in Smiths Grove, Ky., but moved to Texas as a boy. He attended the schools in Sherwood, Texas, and studied at Fort Worth University, where he was graduated with the highest grades made there to that date, before taking his medical degree at Memphis Hospital Medical College, Memphis, Tenn., in 1903. He later did postgraduate work in New York. Dr. Lackey returned to Fort Worth to practice and had been active in his profession until his death. He was on the staffs of Harris Memorial Methodist, All Saints Episcopal, and St. Joseph's Hospitals.



DR. W. C. LACKEY

Dr. Lackey was a charter member of the Tarrant County Medical Society after its reorganization in 1903, and had been a member continuously throughout his professional life of the county society, State Medical Association, and American Medical Association. He was a deacon of Broadway Baptist Church, Fort Worth; a trustee of Buckner Orphans' home, Dallas; and had furnished funds to help build and maintain several missionary churches in Korea. He was a Royal Arch Mason, a member of the Shrine, Knights Templar, Worth Commandery, and the Kiwanis Club.

Surviving Dr. Lackey are his wife, the former Miss Elizabeth Kistler, whom he married in Fort Worth on August 19, 1902; two brothers, J. E. Lackey, Mertzon, and G. S. Lackey, Fort Worth; and five sisters, Mrs. Madie Blair, Mrs. Savannah Bowles, and Mrs. C. J. McDonough, all of Fort Worth, and Mrs. Katherine Ross, Houston, and Mrs. S. C. Frost, Dallas.

*An obituary ordinarily will not be published more than four months after date of death. Coöperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.